U.S. ARMY CORPS OF ENGINEERS
CIVIL WORKS PROGRAM

CONGRESSIONAL SUBMISSION
FISCAL YEAR 2005

GREAT LAKES AND OHIO RIVER DIVISION

Budgetary information will not be released outside the Department of the Army until 2 February 2004

Justification of Estimates for Civil Function Activities
Department of the Army, Fiscal Year 2005

GREAT LAKES AND OHIO RIVER DIVISION

Corps of Engineers

Table of Contents

Justification of Estimates for Civil Function Activities
Department of the Army, Fiscal Year 2005

GREAT LAKES AND OHIO RIVER DIVISION

Corps of Engineers

Table of Contents (Continued)

Page No.

Construction:

Justification of Estimates for Civil Function Activities
Department of the Army, Corps of Engineers
Fiscal Year 2005

SUMMARY, GREAT LAKES AND OHIO RIVER DIVISION

	FY 2004 Allocation	FY 2005 Request	Increase or Decrease
General Investigations			
Surveys	6,874,000	6,313,000	-561,000
Preconstruction Engineering and Design	3,687,000	1,574,000	-2,113,000
Subtotal, General Investigations	10,561,000	7,887,000	-2,674,000
Construction General			
Construction	351,638,000 1/	310,197,000 2/	-41,441,000
Dam Safety Assurance	21,056,000	19,877,000	-1,179,000
Subtotal, Construction General	372,694,000	330,074,000	-42,620,000
Operation and Maintenance	364,336,000	339,797,000	-24,140,000
Grand Total, Great Lakes and Ohio River Division	747,591,000	677,758,000	-69,434,000

1/ The amount to be derived from the Inland Waterways Trust Fund in FY 2004 is estimated to be $94,934,000.

2/ Includes an estimated $121,300,000 to be derived from the Inland Waterways Trust Fund.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
1. SURVEYS – NEW: None.					
2. SURVEYS - CONTINUING:					
a. Navigation Studies.					
Ohio River Main Stem Systems Study, KY, IL, IN, OH, PA and WV Louisville District	50,300,000	48,250,000	970,000	1,080,000	0

The study is an inland navigation systems analysis to address the level of investments needed to provide an efficient navigation system on the Ohio River Main Stem. The study will identify the maintenance, major maintenance, major rehabilitation and new construction investment needs for the navigation locks and dams along the Ohio River Main Stem. These structures are crucial to the orderly development of navigation throughout the Ohio River Basin. As traffic grows through the Ohio River Valley, several lock structures will experience increasing delays, which may be particularly severe during times of maintenance (when the existing chambers must be closed for routine or emergency repairs or accidents). Other locks may become increasingly unreliable due to age and cycles of use. Any closure of the main locks will result in severe traffic impacts. For the past ten years, traffic on the Ohio River has grown at an annual average rate of 2 percent. In 2000, total tonnage reached 236 million tons, reflecting a 22 percent increase over 1987. Energy-related commodities comprised 62 percent of the total tonnage, with aggregates and steel commodities contributing 18 percent and 7 percent, respectively. In 2030, it is projected that total tonnage may reach 370 million tons.

The study is investigating the economic, social, and environmental impacts of both large-scale investments and small-scale improvements. Large-scale improvements could involve constructing a new lock chamber at certain facilities, lengthening existing 600-foot chambers to provide at least two 1200-foot chambers, or provision of replacement locks and dams at older facilities (such as Emsworth, Dashields, or Montgomery Locks and Dams). Small scale improvements could include installation of permanent mooring cells near lock approach points (which could enhance tow mooring in queuing situations and possibly speed up double-cut processing), providing spare lock gates, new procedures to speed up lock maintenance, and other infrastructure or procedural opportunities that could be identified during the study. The study has also addressed ecosystem restoration opportunities.

FY 2004 funds are being used to continue engineering, economic, and environmental system analyses, and efforts on the System Investment Plan (a plan of major Ohio River main stem navigation investments through 2060) and the Cumulative Effects Assessment (an evaluation of cumulative impacts to environmental resources in and along the main stem of the Ohio River). FY 2005 funds will be used to complete engineering, economic, and environmental system analyses incorporating the system-wide cumulative effect assessment and enhanced economics evaluation into the System Investment Plan. The study completion date is May 2005.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005 — Great Lakes and Ohio River Division

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Great Lakes Navigational System, MI, IL, IN, MN, NY, OH, PA and WI Detroit District	7,000,000	1,801,000	1,300,000	800,000	3,099,000

The Great Lakes/St. Lawrence Seaway navigation system is an international waterway that provides a minimum 25.5-foot safe draft for nearly 2,300 miles. The system extends from the Atlantic Ocean throughout the Great Lakes to Duluth, Minnesota, through a system of 19 locks and over 600 miles of maintained navigation channels. The system extends through eight states and two Canadian provinces. The navigation system is operated and maintained by both the United States and Canadian Governments through the St. Lawrence Seaway Development Corporation (DOT), Transport Canada and the St. Lawrence Seaway Management Corporation, and the U.S. Army Corps of Engineers. The system has an enormous impact on the North American economy, and provides a catalyst for billions of dollars of capital investment and industrial growth to both the United States and Canada. Section 456 of the Water Resources Development Act of 1999 directed the Corps to review the feasibility of improving commercial navigation on the Great Lakes navigation system, including locks, dams, harbors, ports, channels, and other related features, in consultation with the St. Lawrence Seaway Development Corporation.

A Reconnaissance Report, in response to the 1999 WRDA direction, was approved in February 2003. Prior to initiation of a feasibility study, additional information is needed, as a supplement to the reconnaissance report, for determination of the Federal interest. This study is unique and is not part of the inland navigation system. The purpose of this effort is to provide further information to support a Federal decision on whether to proceed with the feasibility study. This effort will also include an assessment of baseline without-project conditions for the environment, engineering features and economic conditions, as well as public involvement and coordination. Should the recommendation be to proceed with further studies, this phase must also determine the scope of additional studies, including cost and duration, and develop a Project Management Plan. Since the system is a bi-national waterway, coordination with Canada occurred during the development of the Reconnaissance Report. Transport Canada Minister Collenette and Department of Transportation Secretary Mineta signed a Memorandum of Cooperation underscoring both countries intent to cooperate and collaborate to ensure the viability of the Great Lakes St. Lawrence Seaway System.

FY 2004 and FY 2005 funds will be used to continue with the ongoing supplemental study effort evaluating the engineering, environmental and economic conditions of the Great Lakes St. Lawrence Seaway system. The reconnaissance phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Upper Ohio River Navigation System Study, PA (Emsworth, Dashields and Montgomery Locks and Dams) Pittsburgh District	8,000,000	225,000	390,000	500,000	6,885,000

The study area of the Upper Ohio River Navigation System Study is the upper reach of the Ohio River including the existing navigation facilities at Emsworth, Dashields and Montgomery Locks and Dams in western Pennsylvania. The Emsworth, Dashields and Montgomery (EDM) Locks and Dams, which are the uppermost navigation locks and dams structures on the Ohio River, are located at river miles 6.2, 13.3 and 31.7, respectively, below the "Point" in Pittsburgh, Pennsylvania. All three navigation facilities have dual lock chambers of 110 feet X 600 feet and 56 feet X 300 feet, which are considered undersized compared to the other downstream Ohio River navigation facilities. They are all over 70 years of age and exhibit signs of structural deficiency. Navigation interests in the Pittsburgh area recognize that the possibility of structural failures at the Emsworth, Dashields and Montgomery Locks may soon reach unacceptable levels and support feasibility level study activities for optimum, safe and efficient continuation of navigation at these three structures.

The Upper Ohio River Navigation feasibility study is being addressed as part of the current Ohio River Main Stem Systems (ORMSS) study scope, which addresses feasibility level decision documents for five additional locks and dam navigation improvement projects as well as an overall System Investment Plan (SIP) for the Ohio River system. At this time, the ORMSS-SIP is evaluating the need for additional site-specific improvements beyond the J.T. Myers and Greenup Locks improvements projects. The next ORMSS study report will include a system-wide impact analysis for foreseeable future projects that would be recommended in the System Investment Plan. At the current time, an Upper Ohio River Navigation/EDM site-specific feasibility study will be a recommendation of the ORMSS–SIP. The Corps of Engineers supports the completion of the ORMSS–SIP and the recommended site-specific feasibility reports to follow. The ORMSS–SIP is scheduled for completion in May 2005. The SIP and the associated Environmental Cumulative Effects Assessment (CEA) recommendations will be incorporated into the Upper Ohio River Navigation/EDM feasibility study.

The Upper Ohio River Navigation feasibility study is a site-specific feasibility study recommendation of the Ohio River Main Stem Systems Study, System Investment Plan (scheduled for completion in May 2005). The feasibility phase completion date for the Upper Ohio River Navigation study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
TOTAL: Navigation Studies	65,300,000	50,276,000	2,660,000	2,380,000	9,984,000
b. Flood Damage Prevention Studies					
Des Plaines River, IL and WI (Phase II) Chicago District	5,090,000	1,369,000	260,000	800,000	2,661,000

The Des Plaines River Basin starts in southwest Wisconsin and flows south into northeast Illinois. The study area, located in Lake and Cook Counties in northeastern Illinois and Kenosha County in southeast Wisconsin, has a drainage area of approximately 481 square miles. The Des Plaines River has a long history of flooding which has caused significant economic losses. The maximum flood of record, in September 1986, caused an estimated $35,000,000 in damage to 10,000 dwellings and 263 business and industrial sites and severely impacted the entire transportation network in the Chicago metropolis - air, rail, and road. Section 419 of the Water Resources Development Act of 1999 directs that the Corps not exclude from consideration and evaluation flood damage reduction measures based on restrictive policies regarding the frequency of flooding, the drainage area, and the amount of runoff. Complementary to flood damage reduction, this study emphasizes formulating plans along the main stem and on 15 tributaries in both Illinois and Wisconsin that include environmental restoration and protection, improved water quality, and related recreation opportunities in this rapidly urbanizing portion of the Chicago area. The Illinois Department of Natural Resources, Lake County Storm Management Commission, County of Kenosha, and Cook County Highway Department are sponsors for the project. The Feasibility Cost Sharing Agreement was executed in February 2002.

The preliminary estimated cost of the feasibility phase is $10,180,000 which is to be shared on a 50/50 percent basis by Federal and non-Federal interests. A summary of the cost sharing is as follows:

Total Estimated Study Cost	$10,180,000
Feasibility Phase (Federal)	5,090,000
Feasibility Phase (Non-Federal)	5,090,000

FY 2004 funds are being used to continue the feasibility study and FY 2005 funds will be used to continue the feasibility study. The feasibility phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Illinois Shoreline Erosion, IL (Interim IV) Chicago District	1,133,000	883,000	0	60,000	190,000

The Interim IV study will investigate storm damage, shore erosion and coastal flooding damages along the 22-mile reach of Lake Michigan shore between Waukegan Harbor and Wilmette Harbor. These harbors and the prevalence of shore protection throughout the reach have reduced the supply of sand through trapping of the littoral drift and elimination or reduction of bluff retreat. The result is a dramatic reduction of the protective sand cover, and a significant increase in irreversible erosion or downcutting of the exposed glacial sediment lakebed. Subsequently, the 10 communities within the study reach have suffered notable loss of land and infrastructure. The value of publicly owned structures and facilities located near the shore and potentially at risk from storm damages within this reach is estimated at $328,000,000. Local interests and residents have been relatively successful in holding the shoreline in place with shore protection structures. However, near shore water depths have been increasing continually, primarily due to depletion of offshore sediment trapped by the Waukegan breakwaters, significantly increasing the erosion threat, reducing effective lifetimes of existing structures and increasing the costs of replacement structures. This study proposes to place cobble-sized stone to protect the glacial sediment from erosion. The proposed configuration of the stone will be a combination of continuous and segmented underwater berms. The project sponsor is a consortium of communities led by the City of Highland Park.

The total estimated Federal cost of the study is $1,133,000. The feasibility phase study was initiated under prior study cost-sharing requirements, and feasibility costs will be 100 percent Federal. No additional study funding is available to continue work in FY 2004. FY 2005 funds will be used to continue the feasibility study. The feasibility phase completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005 — Great Lakes and Ohio River Division

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Metropolitan Louisville, Mill Creek Basin, KY Louisville District	1,000,000	100,000	114,000	90,000	696,000

The study area is located within the Mill Creek watershed in southwest Jefferson County, Kentucky. The study area is protected from Ohio River flooding by the Southwest Jefferson County Flood Protection system, which was completed in 1988. However, there are nearly 3,300 homes and businesses, with an estimated value in excess of $100,000,000, that are still subject to flooding from local streams. Approximately 3.5 square miles, or 10 percent, of the basin's entire drainage area is located in the designated floodplain. The most recent flooding in the basin occurred in August 1992, as a result of headwater flooding in the Mill Creek Basin. Damages for this flood, estimated to have a recurrence interval of 10 to 20 years, were in excess of $1,200,000, at current price levels. During the flood of record in March 1964, approximately 900 residential properties were damaged. The study will evaluate a variety of solutions to the flooding problems. The solutions being considered are detention basins, as well as channel modifications, earth levees, and non-structural measures. The non-Federal sponsor for this study is the Louisville and Jefferson County Metropolitan Sewer District (MSD). MSD indicated by letter, dated 9 February 1996, that flooding in the Mill Creek Basin is one of its priority problem areas and that they understand the cost sharing requirements for the feasibility phase. The Feasibility Cost Sharing Agreement is scheduled to be executed in February 2004.

FY 2004 funds are being used to initiate the feasibility study efforts consisting of hydrologic and hydraulic analysis, economic analysis, and preliminary design of the alternatives. FY 2005 funds will be used to continue feasibility study efforts consisting of an engineering, economic, and environmental analysis of the flood damage reduction components. The estimated cost of the feasibility phase is $1,800,000, which is cost shared on a 50/50 percent basis by the Federal Government and the non-Federal sponsor. Up to one-half of the non-federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,900,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	900,000
Feasibility Phase (non-Federal)	900,000

The reconnaissance phase is scheduled for completion in February 2004. The feasibility phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Metropolitan Louisville, Southwest, KY Louisville District	2,274,000	1,751,000	203,000	244,000	76,000

The Metropolitan Louisville, Southwest, study area encompasses a drainage area of approximately 24 square miles including the west and south ends of Louisville, Kentucky. The highly urbanized flood plain includes the main campus area of the University of Louisville, as well as the Churchill Downs neighborhood (site of historic Churchill Downs racecourse). The frequency of flooding has increased over the last few years as a result of overland and combined storm sewer overflows. Components of the existing local flood protection project are inadequate at high Ohio River stages. Flooding occurred in the study area in 1983, 1989, August 1992 (which included loss of life), and most recently in March 1997 when more than 5,000 residential and commercial structures, the Kentucky Fair and Exposition Center, the area around Churchill Downs, and the main campus of the University of Louisville were damaged. Average annual damages in the study area exceed $5,000,000. The Louisville and Jefferson County Metropolitan Sewer District (MSD) is a strong local sponsor. MSD executed the Feasibility Cost Sharing Agreement in June 1999.

The reconnaissance report recommended initiation of feasibility phase studies which would evaluate operational modifications and/or physical improvements to the pump stations located on the Ohio River associated with the existing Federally constructed flood damage prevention project. FY 2004 funds are being used to continue feasibility study efforts consisting of environmental studies, formulation of the recommended plan, and design and cost estimates of plan components; and, completing the hydrologic and economic evaluation of project alternatives. FY 2005 funds will be used to continue the feasibility study efforts. The estimated cost of the feasibility phase is $3,300,000, which is cost shared on a 50/50 percent basis by the Federal Government and the non-Federal sponsor. Up to one-half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,924,000
Reconnaissance Phase (Federal)	624,000
Feasibility Phase (Federal)	1,650,000
Feasibility Phase (Non-Federal)	1,650,000

The reconnaissance phase was completed in June 1999. The feasibility phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Davidson County, Mill Creek Watershed, TN Nashville District	913,000	68,000	195,000	214,000	436,000

Mill Creek is a major tributary of the Cumberland River in southeastern Davidson County and northwestern Williamson County. The Mill Creek watershed is 108 square miles and home to the federally listed endangered Nashville Crayfish. A recurrence of the May 1979 flood of record would cause an estimated $93,000,000 in flood damages today. Over 1,000 homes and businesses are subject to flooding. Corrective measures evaluated during the reconnaissance study include floodway evacuation combined with wetland restoration and enhancement. These outputs will be further refined during the feasibility phase. The sponsor is the Metropolitan Government of Nashville and Davidson County. The sponsor understands its cost sharing responsibilities and has expressed an interest in cost sharing the feasibility phase, by letter of intent dated March 2001. The Feasibility Cost Sharing Agreement was executed on April 24, 2003.

FY 2004 funds are being used to continue the feasibility phase of the study. FY 2005 funds will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $1,600,000, which is to be shared on a 50/50 percent basis by Federal and non-Federal interests. A summary of study cost sharing follows:

Total Estimated Study Cost	$1,713,000
Reconnaissance Phase (Federal)	113,000
Feasibility Phase (Federal)	800,000
Feasibility Phase (Non-Federal)	800,000

The reconnaissance phase was completed in April 2003. The feasibility phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Little Kanawha River, WV Huntington District	350,000	101,000	43,000	125,000	81,000

The Little Kanawha River Basin occupies 2,300 square miles in northwestern West Virginia. The river rises in Upshur County, West Virginia, and flows in a northwesterly direction about 167 miles to Parkersburg, West Virginia, where it empties into the Ohio River. Flood control in the Little Kanawha River basin was originally planned to be accomplished through the construction of three dams – Burnsville, West Fork and Leading Creek; however, Burnsville was the only project ever completed. As a consequence, there remains a significant flooding history with recurring losses to lives and property. In recent years, there has been significant growth and development in Gilmer County located in the upper portion of the basin, and near Parkersburg, West Virginia in the lower end of the basin. In response to these concerns, a reconnaissance study and report was completed in September 2002. The report indicates a Federal interest in several potential projects, including structural and non-structural flood control measures as well as environmental restoration and enhancement. The West Virginia Conservation Agency (WVCA), who participated heavily in the reconnaissance phase, and the West Virginia Department of Environmental Protection (WVDEP) have expressed an interest in financially sponsoring feasibility studies for the watershed.

If the reconnaissance report is certified to be in accordance with policy, FY 2004 funds will be used to initiate the feasibility phase. The funds requested for FY 2005 will be used to continue the Feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $500,000, which is to be cost shared on a 50/50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$ 600,000
Reconnaissance Phase (Federal)	$100,000
Feasibility Phase (Federal)	$ 250,000
Feasibility Phase (Non-Federal)	$ 250,000

The reconnaissance phase is scheduled for completion in April 2004. The feasibility study completion date is to be determined.

TOTAL: Flood Damage Prevention Studies	10,760,000	4,272,000	815,000	1,533,000	4,140,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
c. Shoreline Protection Studies - None.					
d. Special Studies – None.					
e. Ecosystem Restoration Studies.					
Indiana Harbor, IN Chicago District	3,127,000	981,000	325,000	500,000	1,321,000

The study area is located in northwest Indiana in the communities of Gary, East Chicago, and Hammond, Indiana. The study area covers 15.4 river miles, including the Indiana portion of the Grand Calumet River (with the exception of an area to be cleaned up by United States Steel) and the portions of the Lake George Canal and the Calumet Canal that are not part of the federal navigation channel. This area contains approximately two million cubic yards of bottom sediments that are highly contaminated with polynuclear aromatic hydrocarbons, metals (including lead and chromium), and PCB's (below the Toxic Substance Control Act level), causing it to be designated an Area of Concern in the Great Lakes Water Quality Agreement. The Grand Calumet River/Indiana Harbor is a high priority clean-up area for the Indiana Department of Environment Management (IDEM). Environmental dredging and habitat restoration of the area are the probable solutions for this project. The sponsor is the Indiana Department of Environmental Management. The Feasibility Cost Sharing Agreement is scheduled to be executed in March 2004.

FY 2004 and FY 2005 funds will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $6,054,000, which is to be shared on a 50/50 percent basis by Federal and non-Federal interests. The non-Federal sponsor will provide their share as work-in-kind. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$6,154,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	3,027,000
Feasibility Phase (Non-Federal)	3,027,000

The feasibility phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Metropolitan Region of Louisville, Jefferson County, KY Louisville District	430,000	100,000	100,000	100,000	130,000

The study area covers approximately 386 square miles and includes the metropolitan region of Louisville and extends over six counties: north central Kentucky (Jefferson, Oldham and Bullitt) and south central Indiana (Clark, Floyd and Harrison). The study area is drained by the Ohio River, Salt River, Pond Creek, Floyds Fork, Harrods Creek, Beargrass Creek, and Mill Creek in Kentucky, and Silver Creek in Indiana. Federally constructed projects in the area that have directly impacted the environment include the Louisville, Kentucky, Floodwall, the Southwest Jefferson County Levee and Floodwall, and McAlpine Locks and Dam. Most of Jefferson County was historically riparian, and there are many small waterways with floodplains and riparian corridors in varying states of degradation and development. In particular, the wall and levee systems of Louisville have blocked the natural Ohio River overflows, which naturally recharged wetland areas. Habitat will be restored for endangered species, such as the gray and Indiana bats, and for locally threatened species such as the Louisville crayfish. Drainage and flood damage reduction efforts will be linked to restoration of natural floodplain values through the restoration of wetlands and riparian overbank areas, serving as floodwater attenuation and storage areas. Habitat improvement measures, water control structures, moist soil management units, and reforestation will be analyzed. The purpose of the study is to identify feasible projects to restore the ecosystem function and structure along portions of Pond Creek (and its tributaries) to less degraded, more natural conditions. The ecosystem restoration efforts will involve a comprehensive examination of the problems contributing to the ecosystem degradation and development of alternative means for their solution. The intent of the project is to reestablish the attributes of a naturalistic, functioning and self-regulating ecosystem. The Feasibility Cost Sharing Agreement with the Louisville and Jefferson County Metropolitan Sewer District (MSD) was executed in January 2004.

FY 2004 funds are being used to initiate the feasibility study efforts consisting of environmental studies and plan formulation, and preliminary design of the alternatives in the Pond Creek Watershed. FY 2005 funds will be used to continue the feasibility study efforts consisting of engineering, economic, and environmental analysis of the ecosystem restoration components. The estimated cost of the feasibility phase is $660,000, which is cost shared on a 50/50 percent basis by the Federal Government and the non-Federal sponsor. Up to one-half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$760,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	330,000
Feasibility Phase (non-Federal)	330,000

The reconnaissance phase was completed in January 2004. The feasibility phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Buffalo River Environmental Dredging, NY Buffalo District	1,100,000	0	15,000	130,000	955,000

The Buffalo River and Harbor are located at the eastern end of Lake Erie in Buffalo, New York. The Buffalo River has been identified as one of 43 Areas of Concern (AOC's) in the Great Lakes Basin. Contaminated sediments adjacent to the Federal navigation channel eventually settle in the Federal navigation channel and are unsuitable for open lake disposal. Periodic maintenance of the Federal navigation project requires disposal of the contaminated sediments into a confined disposal facility (CDF) at considerable Federal expense. The reconnaissance report was completed in December 2003. The reconnaissance report addressed the use of Section 312 of the WRDA 1990, as amended, which provided Environmental Dredging authorities for the removal of contaminated sediments adjacent to Federal Navigation projects. The reconnaissance study recommended the preparation of a feasibility Project Management Plan (PMP) and Feasibility Cost Sharing Agreement (FCSA). The feasibility study will provide for additional sediment analyses, delineate areas for environmental dredging, develop project cost estimates/cost sharing, and assess the ability of the local sponsor to support the project. The reconnaissance report has identified the Friends of the Buffalo Niagara Rivers as the local sponsor for the feasibility study, and a Letter of Intent was received in December 2003. The feasibility report will recommend an alternative for addressing the contaminated sediments not suitable for open lake disposal, which will significantly reduce the future Federal cost of maintaining the navigation channel, restore beneficial uses of the river, and allow for the implementation of ecosystem restoration authorities. The New York State Department of Environmental Conservation and the Buffalo River Remedial Action Plan (RAP) Committee support contaminated sediment removal. Additionally, with regard to other environmental authorities within the project area, the city of Buffalo and Erie County have demonstrated an interest in supporting environmental restoration projects.

FY 2004 funds are being used to complete the reconnaissance phase, prepare the feasibility phase Project Management Plan (PMP) and Feasibility Cost Sharing Agreement (FCSA). FY 2004 funds will also be used to initiate the feasibility study and conduct technical investigations. FY 2005 funds will be used to continue technical investigations and coordinate the results with local stakeholders. The preliminary estimated cost of the feasibility phase is $2,200,000, which is to be shared on a 50/50 percent basis by both Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,200,000	
Reconnaissance Phase (Federal)	0	(Note: Reconnaissance Report prepared using $160,000 in O&M, General funding)
Feasibility Phase (Federal)	1,100,000	
Feasibility Phase (Non-Federal)	1,100,000	

The reconnaissance phase is scheduled for completion in June 2004. The feasibility phase completion date is to be determined.

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Onondaga Lake, NY Buffalo District	(Partnership)	9,995,000	2,449,000	307,000	400,000	6,839,000

Onondaga Lake, which is part of the New York State Barge Canal System and Oswego River Basin, has a total drainage area of 245 square miles and a surface area of 4.6 square miles. The city of Syracuse is located along the south shore of the lake. Major tributaries to the lake are Onondaga Creek, Ninemile Creek and Ley Creek. The major water resource problem associated with the lake is its degraded water quality. There has been a ban on swimming since the 1940's and fishing was banned on the lake in the 1970's. The poor water quality deters optimal use and economic growth of the surrounding area.

The Onondaga Lake Partnership was authorized under Section 573 of the Water Resources Development Act of 1999. The WRDA 1999 legislation directs the Corps to establish a partnership with other federal, state, and local agencies to develop and implement lake and watershed improvement projects. The WRDA 1999 authorizes the Corps to plan, design, and construct projects for the environmental restoration, conservation, and management of Onondaga Lake.

FY 2004 funds are being used very effectively to execute a watershed management study and lead the Onondaga Lake Partnership (OLP) through chairmanship of the OLP Executive Committee, participation in all three OLP Standing Committees including leadership and coordination of the OLP Annual Progress Meeting, proactive and responsive project management and program leadership, world-class technical support that combined promotes credibility, teamwork and cooperation among Federal, State, and local governments, and other involved parties in the formulation of strategies and execution of numerous projects to address the environmental issues of Onondaga Lake and Onondaga Lake watershed in Syracuse, New York.

FY 2005 funds will be used to continue the Onondaga Lake watershed management study and OLP activities consisting of providing technical and outreach expertise; soliciting, scoping, scheduling, and cost-estimating future projects; tracking progress of existing projects; negotiating with potential sponsors; investigating and overcoming legal, contractual, regulatory, and technical obstacles to improving Onondaga Lake and its watershed.

The completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Columbus Metropolitan Area, Lower Big Darby Creek Basin (Hellbranch) Environmental Restoration, OH Huntington District	452,500	113,000	237,000	50,000	52,500

The study area encompasses the Hellbranch watershed of the Big Darby Creek Basin, located in the central part of Ohio within Franklin County. The Hellbranch watershed is approximately 26 miles in length and contains approximately 38 square miles. Big Darby Creek, including the Hellbranch, represents one of the most biologically diverse aquatic systems in the Midwest, supporting more than 100 species of fish and 38 species of mussels. The watershed provides habitat for 14 species classified by the state or Federal government as endangered and 98 species classified as threatened or potentially threatened. Stresses to the entire Darby ecosystem result primarily from agricultural and expanding urban development. Sediment, nutrient and chemical loading from agricultural fields and stormwater runoff from urbanizing areas represent the primary threats from an aquatic habitat and water quality perspective. Large intense pulses of water entering both the tributaries create threats from a hydrologic perspective. Such pulses can result in downstream flooding, the destabilization of stream banks, and the disruption of both streambed and riparian habitats. Possible solutions include wetland restoration, restoration of aquatic habitat, and hydrologic modeling that can be used as a management planning tool for evaluating future development. The reconnaissance report was certified to be in accord with policy in July 2000. The Franklin County Soil and Water Conservation District will act as the cost sharing sponsor with support from the Hellbranch Watershed Forum which includes members from the City of Columbus, Ohio Department of Natural Resources, Ohio Environmental Protection Agency, The Nature Conservancy, and various townships. We have received a letter of intent from the Hellbranch Watershed Forum, dated 14 May 2002. The Feasibility Cost Sharing Agreement was executed on 2 June 2003.

FY 2004 funds will be used to continue the feasibility phase including development of a watershed action plan which will include water quantity and water quality modeling efforts as well as the identification and evaluation of ecosystem restoration projects. FY 2005 funds will be used to continue the feasibility study. The preliminary estimated cost of the feasibility phase is $815,000, which is to be shared on a 50/50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$860,000
Reconnaissance Phase (Federal)	45,000
Feasibility Phase (Federal)	407,500
Feasibility Phase (Non-Federal)	407,500

The reconnaissance phase was completed in June 2003. The feasibility phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Mahoning River Environmental Dredging, OH Pittsburgh District.	2,100,000	1,250,000	400,000	450,000	0

The Mahoning River Basin covers approximately 1,132 square miles in northeastern Ohio and west-central Pennsylvania. More than 750,000 people live within the basin along the study reach of Trumbull and Mahoning Counties, Ohio, and Lawrence County, Pennsylvania. Local interests from both Ohio and Pennsylvania have requested comprehensive evaluations to remove and remediate contaminated sediments from the river. The studies are being conducted under the authority of Section 312 of the Water Resources Development Act of 1990, as amended, which provides for removal and remediation of contaminated sediments within navigable waters for the purpose of ecosystem restoration. The feasibility study only includes the Ohio portion of the Mahoning River, which is approximately 31 miles of the Lower Mahoning River (Leavittsburg, Ohio, at river mile 46.0 thru Warren and Youngstown, Ohio, to the Ohio-Pennsylvania border at river mile 12.0). Deposition of uncontrolled industrial era residue from nine major Mahoning River valley steel plants, which lined the riverbanks throughout the lower 43-mile reach of the Mahoning River, has resulted in the degradation of the aquatic ecosystem and has become a threat to public safety and health as evident by the Ohio Department of Health, Human Health Advisory (HHA) issued in 1986 and typical for the Pennsylvania portion by the Pennsylvania Department of Environmental Protection - Public Health Advisory 2001. The respective HHA and PHA consists of two warnings: (1) cautioning against contact with the sediments and (2) restrictions of fish consumption. This project will help to restore over 31 miles of water and related land resources back to a baseline condition determined to be just upstream of the study reach at a USGS Gage Station (river mile 43.0) in Leavittsburg, Ohio. Possible solutions include: removal of in-river contaminated sediments; removal of in-river and riverbank contaminated sediments; a combination thereof; coupled with bioremediation of insitu-contaminated sediments. The local communities throughout the study reach in Ohio have all expressed support for the study.

The Feasibility Cost Sharing Agreement was executed in February 2002. Eastgate Regional Council of Governments, a state COG, is the local sponsor. FY 2004 funds are being used to continue the feasibility phase. FY 2005 funds are being used to complete the feasibility phase. The estimated cost of the feasibility phase is $3,000,000, which is to be cost shared on a 50/50 percent basis by Federal and non-Federal interests. A summary of the cost sharing is as follows:

Total Estimated Study Cost	$3,600,000	
Reconnaissance Phase (Federal)	600,000	(Note: Reconnaissance Report prepared using $500,000 in O&M, General funding)
Feasibility Phase (Federal)	1,500,000	
Feasibility Phase (Non-Federal)	1,500,000	

The reconnaissance phase was completed in February 2002. The feasibility phase is scheduled for completion in September 2005.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Western Lake Erie Basin, OH, MI and IN Buffalo District	2,215,000	515,000	130,000	210,000	1,360,000

The purpose of this project is to develop measures to improve water quality, flood control, navigation, fish and wildlife habitat and recreation in a comprehensive manner in the Western Lake Erie Basin (WLEB). The WLEB lies within three adjoining states of Ohio, Michigan and Indiana. It includes the Maumee, Portage and Ottawa Rivers. These rivers are major tributaries to Lake Erie at Toledo Harbor in Maumee Bay, Ohio. The lower main stem of the Maumee River has been identified as one of 43 Areas of Concerns (AOC's) in the Great Lakes Basin. Excessive sediment loading has negatively impacted the water quality in some areas of the Bay. Periodic maintenance of the Federal commercial navigation channel requires disposal of contaminated sediments into a confined disposal facility at considerable Federal expense. Two-thirds of the 1,000,000 cubic yards of material dredged annually are being confined, filling existing facilities about three times faster than planned. Also, flood events have been documented at a number of locations, particularly along the Maumee and Portage Rivers, the Blanchard River at Ottawa, and various locations along the Ottawa River in Michigan and Ohio. The Portage River flooded three times in the last five years.

The reconnaissance report, authorized by section 441 of WRDA 99 has identified several alternative measures and concepts to address the above stated problems in the areas of sediment quality, water quality, fish and wildlife habitat restoration, flood damage reduction, pollution source reduction, source reduction of soil erosion, lack of storage capacity for dredged material disposal, wetland restoration, and contaminated sediment clean-up. These concepts provide for comprehensive ecosystem restoration including habitat and wetland restoration, elimination of bacterial loadings and pollutants of concern, improvement to navigation channels, reduction of flood damage, and improvement of combined sanitary sewers and residential sewage disposal. Identified potential non-federal sponsors for the feasibility studies are the Toledo Metropolitan Area Council of Government, the Toledo-Lucas County Port Authority and the City of Toledo. Given the large size of the basin, several feasibility studies will result. Currently, the first feasibility study would require development of a comprehensive watershed management plan. A feasibility cost sharing agreement is scheduled for execution in August 2004.

FY 2004 funds will be used to initiate the feasibility phase of the WLEB study. FY 2005 funds would be used to continue the feasibility study. The estimated cost of the feasibility phase is $3,400,000, which is to be shared on a 50/50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows.

Total Estimated Study Cost	$ 3,915,000
Reconnaissance Phase (Federal)	515,000
Feasibility Phase (Federal)	1,700,000
Feasibility Phase (Non-Federal)	1,700,000

The reconnaissance phase was completed in December 2003. The feasibility phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
New River, Claytor Lake State Park, VA Huntington District	593,000	58,000	84,000	160,000	291,000

Claytor Dam and Lake is a pump-storage hydropower project located near Radford, Virginia, about 30 miles upstream of the Corps' Bluestone Lake, on the New River. The project is owned and operated by American Electric Power. The 21-mile long, 4,500-acre lake has over 100 miles of shoreline and offers a variety of land and water recreational activities which are available to the general public, including hiking, camping, boating, fishing and water skiing. Stresses to the lake ecosystem have resulted primarily from agricultural and expanding urban development. Sediment, nutrient and chemical loading from agricultural fields and the storm water runoff from urbanizing areas represent the primary threats from an aquatic habitat and water quality perspective. Sedimentation is greatest along the inside of the relic river meander bends. In the most upstream areas of the lake, sedimentation has built "point bars" that are permanently exposed and vegetated by native herbaceous and woody emergent species. Immediately downstream, sedimentation has smothered benthic habitat, reduced water depths and fisheries habitat and increased boating hazards. Areas within the relic river meander bends could be dredged to create more stable and functioning bar forms. The created point bars in conjunction with a deeper and slightly more constricted flow area would provide a more self-sustaining channel thus reducing the hazards. This, in turn, will create approximately 20 to 25 acres of emergent wetlands, increasing water quality and providing fisheries and important avian habitat. The New River is an American Heritage River and is one of the most pristine and naturally significant stream systems in the eastern United States. This project is in alliance with the President's American Heritage Rivers Initiative. The reconnaissance report was certified to be in accordance with policy on 22 June 2001. We have received a letter of intent from the Virginia Department of Conservation and Recreation (VADCR) dated 16 June 2003. They have expressed interest in participating as a non-Federal sponsor for this project. The potential sponsor is aware of the cost sharing responsibilities required for project development and implementation. The Feasibility Cost Sharing Agreement is scheduled for execution in April 2004.

FY 2004 funds are being used to initiate the feasibility phase. FY 2005 funds will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,000,000, which is to be cost shared on a 50/50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,093,000
Reconnaissance Phase (Federal)	93,000
Feasibility Phase (Federal)	500,000
Feasibility Phase (Non-Federal)	500,000

The reconnaissance phase is scheduled for completion in April 2004. The feasibility phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Powell River Watershed, VA Nashville District	1,777,000	1,088,000	128,000	200,000	361,000

The Powell River originates in southeast Virginia and flows southwest across the Tennessee border, where it empties into the Clinch River. Restoring the damaged portions of this unique ecosystem will benefit the eleven endangered mussel species and two threatened fish species. The Powell River Watershed Project Study Plan identified 12 contaminated creeks that contribute to the ecosystem degradation of the Powell River watershed. These creeks will be evaluated in three interim feasibility reports that will develop a watershed management plan containing potential corrective measures. The interim feasibility reports will evaluate measures which provide modification of hydrology or substrate by eliminating heavy metals in the water and increasing the ph of the water to normal levels through use of active (filtration) and passive (weirs, impoundment and wetland creation) systems for restoration of the ecosystem. The Lee-Norton-Wise-Scott-Planning District Commission (LENOWISCO), by letter of intent dated November 26, 1996, indicated an interest in cost-sharing the feasibility study. The Feasibility Cost Sharing Agreement was executed on July 20, 1998. The Ely and Puckett Creeks interim report was completed in May 2000. The interim report for Straight, Reeds, Jones, and Cox Creeks will be completed in November 2004.

FY 2004 funds will be used to continue the Straight, Reeds, Jones and Cox Creeks interim report and initiate the Bundy Creek, Craborchard Creek, Pigeon Creek and Jordan Branch interim report. FY 2005 funds will be used to continue the feasibility study. The estimated cost of the feasibility phase is $3,354,000, which is to be shared on a 50/50 percent basis by Federal and non-Federal interests. A summary of study cost sharing follows:

Total Estimated Study Cost	$3,454,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,677,000
Feasibility Phase (Non-Federal)	1,677,000

The reconnaissance phase was completed in July 1998. The feasibility phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Fox River Environmental Dredging, WI Detroit District	925,000	201,500	65,000	200,000	458,500

The study will investigate environmental dredging and other water related resource problems and needs on the Fox River and Green Bay Harbor located in northeastern Wisconsin. The study area encompasses the Lower Fox River which is defined as that 39-mile segment of the Fox River beginning at the mouth of Lake Winnebago, and terminating at the mouth of Green Bay. The ecosystem of the Fox River has been severely degraded in a number of locations by several factors. The primary source of degradation has been various industries discharging wastewater into the Fox River over a period of many years. The Fox River is contaminated with polychlorinated biphenyl (PCB), and the Wisconsin Department of Natural Resources (WDNR), Bureau of Watershed Management, is currently considering various cleanup options, which would involve environmental dredging. Preliminary evaluation by the WDNR estimates there are approximately 2,000,000 cubic yards of contaminated sediment within the Lower Fox River system to be addressed under the study. The WDNR's feasibility study report was completed in 2003. The Corps will use the results obtained by the WDNR to formulate the study scope of work. Future partnerships between Federal, State, and local interests will need to address responsibilities of cleanup and the process needed to effectively remove the contaminated sediments. Removal of the contaminated sediments will substantially improve water quality. Improved water quality will lead to restoration of the habitat for fish and wildlife, characterized by healthier benthic communities and improved vegetation for food and refuge. Improved water quality would also lead to reduced taste and odor problems in the water and in fish. Significant economic benefits would come from the municipal and industrial water improvements and the increased recreational opportunities. A Feasibility Cost Sharing Agreement was signed on 27 September 2002. The Wisconsin Department of Natural Resources is the non-Federal sponsor.

FY 2004 funds are being used to continue the feasibility phase of the study. FY 2005 funds will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $1,600,000, which is to be cost-shared on a 50/50 percent basis between Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,725,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	800,000
Feasibility Phase (Non-Federal)	800,000

The reconnaissance phase was completed in June 2001. The feasibility phase completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
TOTAL: Ecosystem Restoration Studies	22,199,500	6,240,500	1,491,000	2,400,000	11,768,000
TOTAL SURVEYS – CONTINUING	98,259,500	60,788,500	5,266,000	6,313,000	25,892,000
TOTAL SURVEYS – NEW & CONTINUING	98,259,500	60,788,500	5,266,000	6,313,000	25,892,000

3. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) – NEW: None.

4. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) - CONTINUING:

   a. Navigation.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
John T. Myers Locks and Dam, IN and KY Louisville District	8,400,000	4,934,000	845,000	700,000	1,921,000

John T. Myers Locks and Dam are located on the Ohio River 846.0 miles below Pittsburgh, Pennsylvania, near Uniontown, Indiana. The present navigation locks are on the Indiana side of the river near Mt. Vernon, Indiana, and consist of a main lock of 110 feet X 1,200 feet and one auxiliary lock of 110 feet X 600 feet placed in operation in 1975. A proposed modernization of the existing facility would extend the auxiliary (110-foot X 600-foot) lock to become a second 110-foot X 1,200-foot lock. Tonnages through Myers locks are expected to grow annually from the 2000 figure of 72.0 million tons to 154.0 million tons in 2060. These tonnage projections indicate that Myers locks represent the next potential traffic bottleneck in the mainstem Ohio River system following Robert C. Byrd and Olmsted. The need for a new lock is in response to identified annual increases in tonnage levels and delays. About 44 percent of the present traffic is coal. The feasibility report for the Myers interim was completed in May 2000 with the issuance of the Division Commander's public notice. The reports recommendation is construction of an extension to the existing auxiliary lock. The estimated project cost is $227,000,000, with net average annual incremental benefits of $8,600,000 attributable to navigation. The benefit to cost ratio is 1.8 to 1 based on an interest rate of 6-5/8 percent. The project was authorized for construction WRDA 2000.

Total Estimated Preconstruction Engineering and Design Costs	8,400,000	Total Estimated Preconstruction Engineering and Design Costs	8,400,000
Initial Federal Share	8,400,000	Ultimate Federal Share	8,400,000
Initial Non-Federal Share	0	Ultimate Non-Federal Share	0

In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the costs of construction would be derived from the Inland Waterways Trust Fund. FY 2004 funds are being used to continue Preconstruction Engineering and Design for foundation explorations, hydraulic studies and completion of plans and specifications for the Resident Engineers Building portion of the site preparation phase. FY 2005 funds will be used to continue engineering analyses and preparation of the project Design Documentation Reports, and also to continue plans and specifications for Aquatic Mitigation (which will be completed prior to lock construction). The Preconstruction Engineering and Design phase completion date is to be determined.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Greenup Locks and Dam, KY and OH Huntington District	6,910,000	4,701,000	1,899,000	310,000	0

Greenup Locks and Dam project is located on the left descending bank of the Ohio River near Greenup, Kentucky, 341.0 miles downstream of Pittsburgh, Pennsylvania. The existing project consists of a non-navigable, high-lift gated dam with a top length of 1,287 feet and two parallel lock chambers. The main lock chamber is 110 feet X 1200 feet and the auxiliary lock is 110 feet X 600 feet; both chambers were put into service in 1959. Current traffic projections indicate that by the year 2010, tonnage at the Greenup project will exceed the effective capacity of the main lock, so that the auxiliary lock will be regularly required to process traffic. At this point, closure of the main lock, for maintenance or in the event of an accident, will generate massive delays and associated increased costs to industry. Additional lock capacity will be required or the delay experience of 1999 will become more likely and lengthier as these locks age. Industry costs associated with these closures will grow. The feasibility report was completed in April 2000, and recommended an extension of the existing 600-foot lock to 1200 feet and major rehabilitation of the existing 1200-foot lock as the most effective means of meeting the navigation needs at Greenup Locks and Dam. The recommended project was authorized for construction by the Water Resources Development Act of 2000 at a cost of $175,500,000. The project cost is $238,000,000 (October 2003 price level, fully funded), with average annual benefits of $29,494,000. The benefit to cost ratio is 3.1 to 1 based on the October 2003 economic analysis and current first costs (5-7/8 percent Federal Discount Rate). This project enjoys the support of regional and national waterway interests, especially towing companies.

Total Estimated Preconstruction Engineering and Design Costs	6,910,000	Total Estimated Preconstruction Engineering and Design Costs	6,910,000
Initial Federal Share	6,910,000	Ultimate Federal Share	6,910,000
Initial Non-Federal Share	0	Ultimate Non-Federal Share	0

In accordance with the cost sharing and financing concepts in the Water Resources Development Act of 1986, 50 percent of the construction cost would be derived from the Inland Waterways Trust Fund. FY 2004 funds are being used to continue Preconstruction Engineering and Design (PED) consisting mainly of development of plans and specifications for the dry dock facility, initiation of the design documentation report for the lock extension, and initiation of the limited reevaluation report for the major rehabilitation of the structure. FY 2005 funds will be used to complete PED, consisting mainly of continuation of the design documentation report for the lock extension and completion of the limited reevaluation report for the major rehabilitation of the structure. The Preconstruction Engineering and Design phase completion date is September 2005.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005 — Great Lakes and Ohio River Division

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
TOTAL: Navigation	15,310,000	9,635,000	2,744,000	1,010,000	1,921,000

b. Flood Control – None.

c. Special Studies – None.

d. Ecosystem Restoration Studies.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
Ashtabula River Environmental Dredging, OH Buffalo District	1,725,000	866,000	295,000	564,000	0

The Ashtabula River is located along the southern shore of Lake Erie, approximately 150 miles west of Buffalo, New York, and 55 miles east of Cleveland, Ohio. Upstream of the 5th Street Bridge, the maintenance of the navigation channel has been limited due to the presence of contaminants in the sediment and the lack of appropriate disposal facilities. Portions of this channel were last dredged in 1993, to significantly reduced depths. Contaminated sediments have been moving downstream, into the Federal navigation channel below the 5th Street Bridge. Presently, only the sediments located lakeward of a line midway between the 5th Street Bridge and the mouth of the river are suitable for open lake disposal. The primary contaminants of concern are Polychlorinated Biphenyls, Polycyclic Aromatic Hydrocarbons, heavy metals and low-level radionuclides. In 1994, representatives of government, industry, and the local community formed the Ashtabula River Partnership (ARP) to address restoration of the impaired beneficial uses caused by the contaminated sediments within the river and harbor area. Remediation of a source of the contamination (a tributary to the river) was completed in 2002 under the CERCLA authority.

The purpose of the project is to remove and confine contaminated sediments from the Ashtabula River that are significantly impairing the aquatic ecosystem and constraining beneficial use of existing facilities in the Ashtabula River and Harbor. Downstream of the 5th Street Bridge, 115,000 cubic yards of sediment will be dredged and disposed under the authorities of Operation and Maintenance, and Section 312(a) of the Water Resources Development Act (WRDA) of 1990. Upstream of the 5th Street Bridge, 581,000 cubic yards of sediment will be dredged and disposed under the authority of Section 312(b) of WRDA 1990. Public and agency coordination of the final feasibility report, known as the Comprehensive Management Plan and Environmental Impact Statement was completed in January 2002. The Preconstruction Engineering and Design (PED) Design Agreement was executed on 21 December 2001. The Ashtabula (City) Port Authority is the non-Federal sponsor. The project is authorized for construction by WRDA 1990, Section 312, as amended by Section 205 of WRDA 1996, and cost shared in accordance with the provisions of the WRDA 1999, Section 224. While Preconstruction Engineering and Design (PED) is funded 75 percent Federal and 25 percent non-Federal, the actual cost of PED will ultimately be shared at the same ratio as construction (presently estimated as 65 percent Federal and 35 percent non-Federal).

Total Estimated Preconstruction Engineering and Design Costs	2,300,000	Total Estimated Preconstruction Engineering and Design Costs	2,300,000
Initial Federal Share	1,725,000	Ultimate Federal Share	1,495,000
Initial Non-Federal Share	575,000	Ultimate Non-Federal Share	805,000

FY 2004 funds are being used to continue PED, consisting of detailed designs for sediment dredging, dewatering, transfer, landfill disposal, and water treatment facilities. FY 2005 funds will be used to complete PED, including detailed design, and preparation of plans and specifications. The Preconstruction Engineering and Design phase completion date is September 2005.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005 — Great Lakes and Ohio River Division

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2004 $	Allocation FY 2004 $	Tentative Allocation FY 2005 $	Additional to Complete After FY 2005 $
TOTAL: Ecosystem Restoration Studies	1,725,000	866,000	295,000	564,000	0
TOTAL PED – CONTINUING	17,035,000	10,501,000	3,039,000	1,574,000	1,921,000
TOTAL PED – NEW & CONTINUING	17,035,000	10,501,000	3,039,000	1,574,,000	1,921,000
GRAND TOTAL – SURVEYS & PED	115,294,500	71,289,500	8,305,000	7,887,000	27.813,000

APPROPRIATION TITLE: Construction, General - Locks and Dams (Navigation)

PROJECT: Olmsted Locks and Dam, Illinois and Kentucky (Continuing)

LOCATION: The project is located in Pulaski County, Illinois, and Ballard County, Kentucky, on the Ohio River near Olmsted, Illinois, approximately 964 miles downstream from Pittsburgh, Pennsylvania.

DESCRIPTION: The project will replace Ohio River Locks and Dams 52 and 53. The new structure will consist of two 110’ by 1200’ locks adjacent to the Illinois shore and a dam comprised of tainter gates, navigable pass, and a fixed weir. All work is programmed..

AUTHORIZATION: Water Resources Development Act of 1988.

REMAINING BENEFIT-REMAINING COST RATIO: 10.2 to 1 at 8 7/8 percent.

TOTAL BENEFIT-COST RATIO: 2.7 to 1 at 8 7/8 percent.

INITIAL BENEFIT-COST RATIO: 3.7 at 8 7/8 percent (FY 1991).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the Olmsted Locks and Dam Benefit Update, dated October, 1990.

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$1,400,000,000	Entire Project	44	To Be Determined
General Appropriations	700,000,000				
Inland Waterways Trust Fund	700,000,000				
Estimated Non-Federal Cost		0			
Total Estimated Project Cost		$ 1,400,000,000			

PHYSICAL DATA	
Lock - 110 by 1,200 foot Chambers	2
Dam - Navigable Pass	1,400 ft.
Fixed Weir	561 ft.
Tainter Gates	744 ft.
Acres – Dam	123 acres
Road	21 acres
Disposal Area	114 acres
Flow Easements	35 acres

SUMMARIZED FINANCIAL DATA (Continued)	GENERAL APPNS.	INLAND WATERWAYS TRUST FUNDS	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	$ 300,115,500	$ 300,115,500	
Conference Allowance for FY 2004	31,500,000	31,500,000	
Allocation for FY 2004	15,875,000 1/	15,875,000 1/	
Allocations through FY 2004	315,990,500	315,990,500	45
Allocation Requested for FY 2005	37,500,000	37,500,000	50
Programmed Balance to Complete after FY 2005	346,509,500	346,509,500	
Unprogrammed Balance to Complete after FY 2005	$ 0	$ 0	

1/ Reflects $6,971,000 reduction assigned as savings and slippage, $187,000 rescinded in accordance with the Consolidated Appropriations Act, 2004, and $8,467,000 reprogrammed from the project.

JUSTIFICATION: The project is in a strategic location on the inland waterway system. Virtually all waterway traffic moving between the Ohio River and tributaries and the Mississippi River and tributaries passes through the project area. Olmsted Locks and Dam will replace existing Ohio River Locks and Dams 52 and 53, which are over 70 years old. Both projects have temporary lock chambers that are inefficient and neither project conforms to current design criteria for structural stability. Commercial navigation in 1999 was 95 million tons through Lock 52 and 88 million tons through Lock 53. Historically, tonnage growth has been steady and is expected to continue in the long term. The long term (2010-2030) average annual growth rate is projected to be 0.8 percent. The value of the commodities through the project area in 1999 was estimated at $20 billion. Energy-related commodities comprised approximately 38 percent of the total tonnage, with grains and chemicals each contributing approximately 11 and 10 percent, respectively, of total tonnage. The projected increases in waterway traffic demands in combination with the limited capacity of the existing locks will result in increased lockage delays, costing the industry $554 million on an annual basis.

The following counties qualify as areas of "substantial and persistent" unemployment: Illinois - Alexander, Johnson, Massac, Pope, Pulaski, and Union; Kentucky - Ballard, Carlisle, Graves, Livingston, and Marshall.

Average annual benefits are as follows:

Annual Benefits	Amount
Navigation	$ 526,253,000
Employment	837,000
Cost Reduction	27,334,000
Total	$ 554,424,000

FISCAL YEAR 2005: The requested amount of $75,000,000 for this project will be applied as follows:

Continue Real Estate Activities	130,000
Continue Dam Construction	63,780,000
Continue Cultural Resources	10,000
Continue Mussel Monitoring	488,000
Complete Gate Storage	955,000
Complete Down Stream Mooring Cells	50,000
Complete Approach Walls	1,133,000
Complete Bulkheads	1,165,000
Misc. Lock Repairs	600,000
Planning, Engineering, and Design	1,500,000
Construction Management	4,919,000
Lock Operation during Construction	270,000
Total	$ 75,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50% of the total cost of construction will be derived from the Inland Waterways Trust Fund.

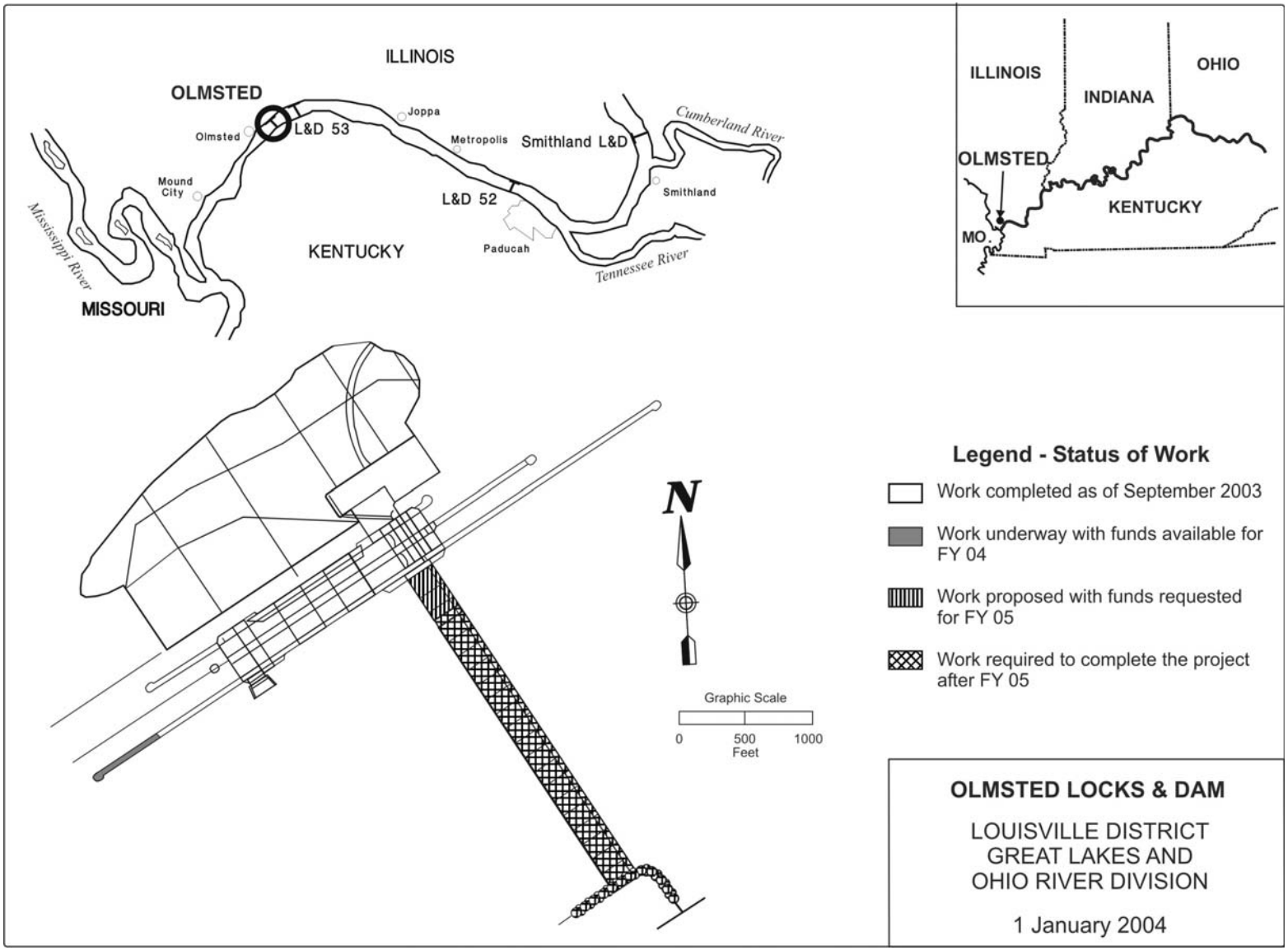
STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $1,400,000,000 is an increase of $320,000,000 from the latest estimate ($1,080,000,000) presented to Congress (FY 2004). The change includes the following items.

Item	Amount
Post Contact Award and Other Estimates	250,000,000
Price Escalation on Construction Features	$ 70,000,000
Total	$ 320,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency on April 4, 1986. Due to project changes, a Draft Supplemental EIS was filed in November 1991. The Final Supplement to the EIS was filed on March 26, 1993, and the Record Of Decision was signed on May 5, 1993.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1986. Funds to initiate construction were appropriated in FY 1991. The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


ILLINOIS
OLMSTED
Olmsted
L&D 53
Joppa
Metropolis
Smithland L&D
Cumberland River
Mound City
L&D 52
Smithland
Mississippi River
KENTUCKY
Paducah
Tennessee River
MISSOURI
ILLINOIS
INDIANA
OHIO
OLMSTED
KENTUCKY
MO.
N
Graphic Scale
0
500
1000
Feet
Legend - Status of Work
Work completed as of September 2003
Work underway with funds available for FY 04
Work proposed with funds requested for FY 05
Work required to complete the project after FY 05
OLMSTED LOCKS & DAM
LOUISVILLE DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION
1 January 2004

APROPRIATION TITLE: Construction, General – Channel and Harbor (Navigation)

PROJECT: Indiana Harbor and Canal, Confined Disposal Facility, Indiana (Continuing)

LOCATION: The project is located on the southwestern shore of Lake Michigan within the City of East Chicago, Lake County, Indiana, 4-1/2 miles east of the Indiana-Illinois state line and 17 miles from downtown Chicago, Illinois.

DESCRIPTION: Indiana Harbor and Canal (IHC) is an authorized Federal navigation project with an entrance channel and outer harbor protected by breakwaters, and an inner harbor which includes the Indiana Harbor Canal and its two branches, the Lake George Branch, which extends west for a distance of 6,800 feet, and the Calumet River Branch which extends south for about 2 miles where it joins the Grand Calumet River. A 4.8 million cubic yards capacity Confined Disposal Facility (CDF) will be constructed on the 164 acres of land adjacent to the Lake George Branch of the IHC, formerly occupied by an oil refinery owned by the Atlantic Richfield Company now a subsidiary of British Petroleum America, Incorporation and subsequently acquired by Energy Cooperative Incorporated (ECI). The ECI property, which currently has open Resource Conservation and Recovery Act (RCRA) status, was transferred to the current local sponsor, the East Chicago Waterway Management District (ECWMD) in 1994. Use of this site for the CDF is contingent upon the construction of specific RCRA closure and corrective action features which will be integral aspects of the CDF construction. The elements of the CDF include construction of dikes; a hydraulic gradient control system which includes monitoring and extraction wells and a subsurface cutoff wall; an on-site effluent treatment plant; a dredged material rehandling area; and air monitoring. All work is programmed..

AUTHORIZATION: River and Harbor Acts of 1910 and 1960.

REMAINING BENEFIT - REMAINING COST RATIO: 3.0 to 1 at 7 3/8 percent.

TOTAL BENEFIT-COST RATIO: 3.0 to 1 at 7 3/8 percent.

INITIAL BENEFIT-COST RATIO: 3.0 to 1 at 7 3/8 percent (FY 1999)

BASIS OF BENEFIT COST RATIO: Benefits are from the Final Comprehensive Management Plan, Indiana Harbor and Canal Maintenance Dredging and Disposal Activities, dated January 1999 at October 1997 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT. OF EST FED. COST	STATUS: (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		$ 71,800,000		Entire Project	6	To Be Determined
Future Non-Federal Reimbursement		$ 8,800,000				
Estimated Federal Cost (Ultimate)		$ 63,000,000				
Estimated Non-Federal Cost		$ 60,000,000				
Cash Contributions	49,500,000					
Other Costs	1,700,000					
Reimbursements	8,800,000					
Total Estimated Programmed Project Cost		$ 123,000,000				
Total Estimated Unprogrammed Project Cost		0				
Total Estimated Project Cost		$ 123,000,000				
Allocations to 30 September 2003		$ 14,827,000				
Conference Allowance for FY 2004		7,000,000				
Allocation for FY 2004		5,410,000	1/			
Allocations through FY 2004		20,237,000	32			
Allocation Requested for FY 2005		5,000,000	40			
Programmed Balance to Complete After FY 2005		37,763,000				
Unprogrammed Balance to Complete after FY 2004		0				

PHYSICAL DATA

Dikes	13,000 lin. ft.
RCRA Cap	948,000 cu. yds.
Rehandling Area	1
Effluent Treatment Plant	1
Cutoff Wall	341,715 sq. ft.

1/ Reflects $1,549,000 reduction assigned as savings and slippage, and $41,000 rescinded in accordance with the Consolidated Appropriations Act, 2004.

JUSTIFICATION: Indiana Harbor received over 13 million tons of waterborne commerce in 2000, second only to the Port of Chicago in tonnage received on Lake Michigan. The ISG Company, Ispat Inland Steel Company, U.S. Gypsum Company, Safety-Kleen Company and the Amoco Oil Company are the primary users of the Indiana Harbor and Canal. Ispat Inland Steel Company, one of the largest steel manufacturers in the United States, is the largest user of the harbor.

JUSTIFICATION (continued):

There is an estimated 1 million cubic yards backlog of maintenance dredging at the Indiana Harbor and Canal. The resulting inadequate channel depths are causing deep-draft vessels to plow through sediments at various locations, pushing them into berthing areas and other areas located along dock faces outside of the Federal channel. In addition, ships come into the harbor loaded at less than optimum vessel drafts. There is also a problem due to restricted use of various docks and double handling of bulk commodities as a result of inadequate channel depths. These problems are causing increased transportation costs of waterborne commerce at this navigation project, estimated at $15.9 million annually. These additional costs are estimated to increase to $21.7 million by the year 2031. Ships trading into Indiana Harbor forfeit as much as 16 inches of draft, or more than 4,300 tons of cargo each arrival.

The Indiana Harbor and Canal navigation project and the Grand Calumet River region have been identified as one of the 43 Great Lakes Areas of Concern by the International Joint Commission primarily due to the quality of the watercourse sediments. Polluted sediments are continually put into suspension due to propeller action of commercial ships. Major storm events flush polluted sediments from the harbor into Lake Michigan. It is estimated that between 100,000 and 200,000 cubic yards of polluted sediment are being discharged from the harbor into the lake annually. The annual sediment load to the lake contains an estimated 67,000 pounds of chromium, 100,000 pounds of lead and 420 pounds of PCB's. Adverse impacts can be detected and measured for a distance of more than 5 miles from the harbor entrance, affecting water supply intakes, sport fishing and recreational areas. Dredging will remove approximately 4.8 million cubic yards of contaminated sediments from the ambient environment in Northwest Indiana and will partially mitigate the currently unrestricted migration of these polluted materials into the near shore areas of Lake Michigan.

The Indiana Harbor and Canal navigation project has not been dredged since 1972. The United States Environmental Protection Agency determined that disposal in Lake Michigan was no longer acceptable due to the polluted character of the dredged material, nor are they suitable for unconfined upland disposal or beneficial use. Therefore, a confined disposal facility must be constructed before maintenance dredging of the Federal channel can commence.

The total average annual benefits are $14,333,000, all for navigation.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Complete Construction of Channel Obstructions	$1,000,000
Continue Construction of Collection Trench	2,000,000
Engineering and Design	1,700,000
Construction Management	300,000
Total	$5,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts contained in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Pay 25 percent of the costs allocated to general navigation facilities during construction.	24,000,000	
Reimburse an additional 10 percent of the costs of general navigation facilities allocated to commercial navigation within a period of 30 years following completion of construction, as partially reduced by a credit allowed for the value of lands, easements, rights of way, and relocations, allocated to general navigation facilities.	8,800,000	
Pay 100 percent of the construction costs allocated to the local service facilities (berthing areas) and 100 percent of operations and maintenance costs allocated to the local service facilities.	25,500,000	370,000
Provide lands, easements, rights of way, and borrow areas.	50,000	
Modify or relocate utilities, roads, bridges (except existing bridges over, Navigable waters) and other facilities, where necessary for the construction of the project.	1,650,000	
Total Non-Federal	$60,000,000	$370,000

The non-Federal sponsor has agreed to make all payments required concurrently with construction and to make all required reimbursements within a period of 30 years following completion of construction.

STATUS OF LOCAL COOPERATION: The East Chicago Waterway Management District is the local sponsor. The Project Cooperation Agreement was executed on 7 August 2000.

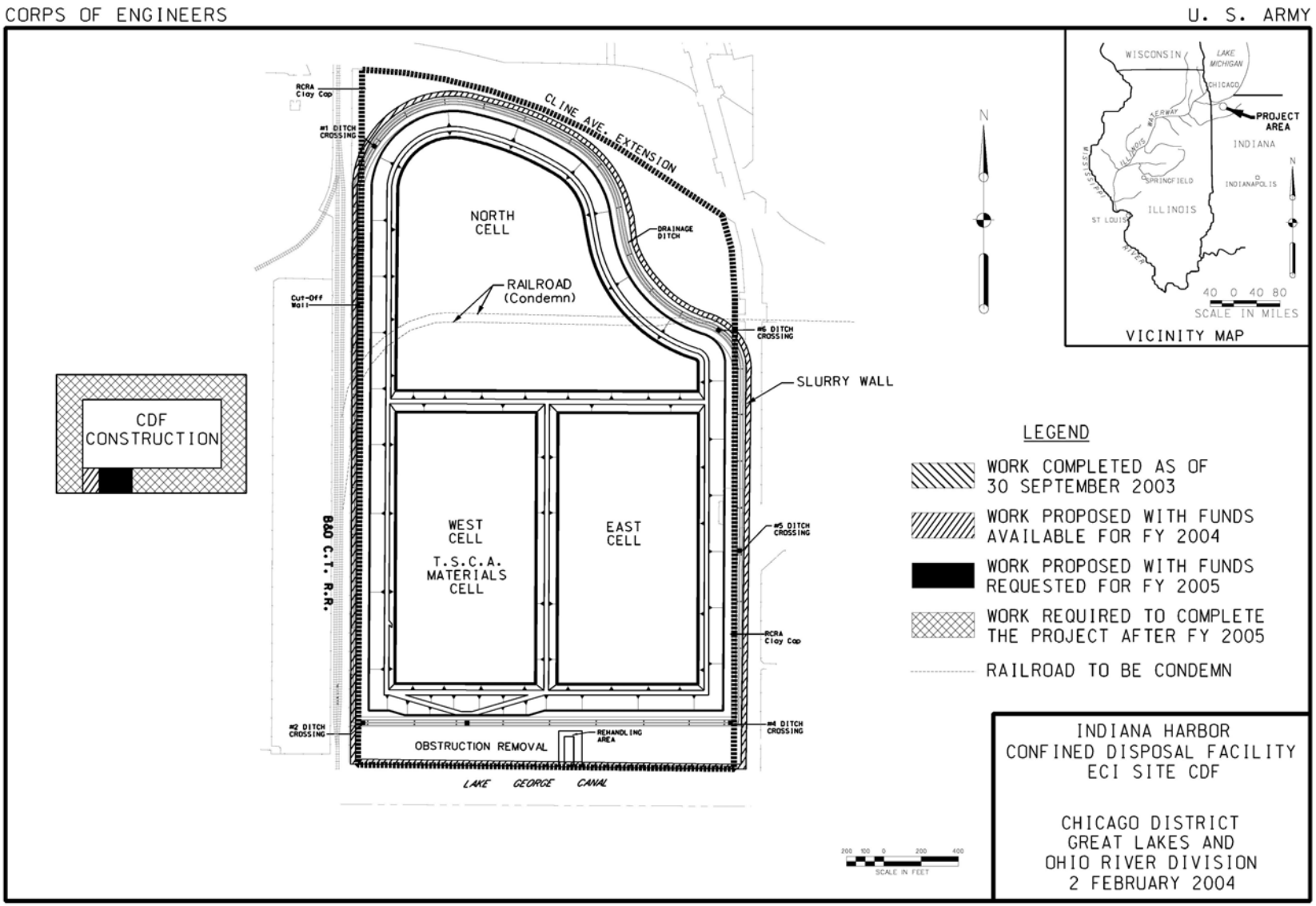
The non-Federal cost estimate of $60,000,000 which includes a cash contribution of $49,500,000, has changed from the non-Federal cost estimate of $56,900,000 which includes a cash contribution of $47,300,000, as noted in the PCA. The non-Federal required reimbursements, in the amount of $8,800,000, will be repaid within a period of 30 years following completion of construction. The non-Federal sponsor is financially capable and willing to contribute the non-Federal share.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate (ultimate) of $63,000,000 is a decrease of $1,000,000 from the last estimate presented to Congress of $64,000,000 (FY 2004).

Item	Amount
Price escalation on construction features	$ (1,000,000)
Total	$ (1,000,000)

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Public and Agency review of final Environmental Impact Statement and the Comprehensive Management Plan were completed in November 1998. The Record of Decision for the FEIS for the entire project was signed February 2, 1999.

OTHER INFORMATION: Initial construction funds were appropriated in FY 1999. The Comprehensive Management Plan, Indiana Harbor and Canal Maintenance Dredging and Disposal Activities, dated January 1999, was completed with Operation and Maintenance funds. The East Chicago Waterway Management District, the local project sponsor, has received letters of intent from the Ispat Inland Steel and LTV Steel companies to participate with the local sponsor as users of the confined disposal facility project. The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


CORPS OF ENGINEERS
U. S. ARMY
CDF CONSTRUCTION
RCRA Clay Cap
#1 DITCH CROSSING
CLINE AVE. EXTENSION
NORTH CELL
DRAINAGE DITCH
RAILROAD (Condemn)
Cut-Off Wall
#6 DITCH CROSSING
SLURRY WALL
WEST CELL
T.S.C.A. MATERIALS CELL
EAST CELL
840 C.T. R.R.
#5 DITCH CROSSING
RCRA Clay Cap
#2 DITCH CROSSING
OBSTRUCTION REMOVAL
REHANDLING AREA
#4 DITCH CROSSING
LAKE GEORGE CANAL
N
WISCONSIN
LAKE MICHIGAN
CHICAGO
PROJECT AREA
INDIANA
SPRINGFIELD
INDIANAPOLIS
ILLINOIS
ST LOUIS
40 0 40 80
SCALE IN MILES
VICINITY MAP
LEGEND
WORK COMPLETED AS OF 30 SEPTEMBER 2003
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005
RAILROAD TO BE CONDEMN
200 100 0 200 400
SCALE IN FEET
INDIANA HARBOR
CONFINED DISPOSAL FACILITY
ECI SITE CDF
CHICAGO DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION
2 FEBRUARY 2004

APPROPRIATION TITLE: Construction General - Locks & Dams (Navigation)

PROJECT: Kentucky Lock and Dam, Tennessee River, Kentucky

LOCATION: The project is located on the Tennessee River at Mile 22.4 near Grand Rivers, Kentucky.

DESCRIPTION: The modernization of the existing facility will include the addition of a 110-foot x 1200-foot lock landward and adjacent to the existing 110-foot x 600-foot lock, and the relocation of an existing railroad, highway, and powerhouse access road. The railroad and highway will be relocated downstream of the new lock's lower gates and will require the construction of new bridges across the river. The powerhouse access road will be relocated from the east bank to the west bank and will require the construction of a new ramp. All work is programmed..

AUTHORIZATION: The Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 2.5 at 7 5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.6 at 7 5/8 percent.

INITIAL BENEFIT-COST RATIO: 2.4 at 7 5/8 percent (FY 1998).

BASIS OF BENEFIT COST RATIO: Benefits are based on the Limited Reevaluation Report approved in November 1995 and costs are based on a 2003 update of the Innovated Design/Cost Reduction Studies completed in June 1995.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		$641,600,000
Construction General	$320,800,000	
Inland Waterways Trust Fund	$320,800,000	
Total Estimated Project Cost		$641,600,000

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	18	To Be Determined

PHYSICAL DATA

Lock Chamber (New)	110 ft. x 1200 ft.
Bridges	
Railroad (New)	3100 ft.
Highway (New)	3100 ft.

SUMMARIZED FINANCIAL DATA (Continued)

	CONSTRUCTION GENERAL	INLAND WATERWAYS TRUST FUND	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	55,873,000	55,873,000	
Budget Request for FY 2004	12,433,000	12,433,000	
Allocation for FY 2004	11,541,000 1/	11,541,000 2/	
Allocations through FY 2004	67,414,000	67,414,000	21
Allocation Requested for FY 2005	12,500,000	12,500,000	25
Programmed Balance to Complete after FY 2005	240,886,000	240,886,000	
Unprogrammed Balance to Complete after FY 2005	0	0	

1/ Reflects $3,304,000 reduction assigned as savings and slippage and $88,000 rescinded in accordance with the Consolidated Appropriations Act, 2004.
2/ Reflects $3,304,000 reduction assigned as savings and slippage and $88,000 rescinded in accordance with the Consolidated Appropriations Act, 2004.

JUSTIFICATION: The existing 110-foot x 600-foot Kentucky Lock is too small to handle a modern 15-barge tow without two lockages. This greatly increases the processing time resulting in Kentucky Lock having one of the highest transit times on the inland waterway system. Delays at the lock averaged over 4 hours per tow in 2003. System traffic is expected to grow annually from the 38 million tons recorded in 2000 to an estimated 77 million tons in 2050 resulting in a 38.4 hour average delay per tow. The addition of a new 1200-foot lock will greatly reduce these delays and generate $55.1 million in average annual benefits to the nation as a result of reduced cost to transport commodities through the system.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Highway/Railroad Relocation	$12,900,000
Continue Lock Construction	5,700,000
Planning, Engineering, and Design	5,100,000
Construction Management	1,300,000
Total	$25,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total cost for the project will be derived from the Inland Waterways Trust Fund.

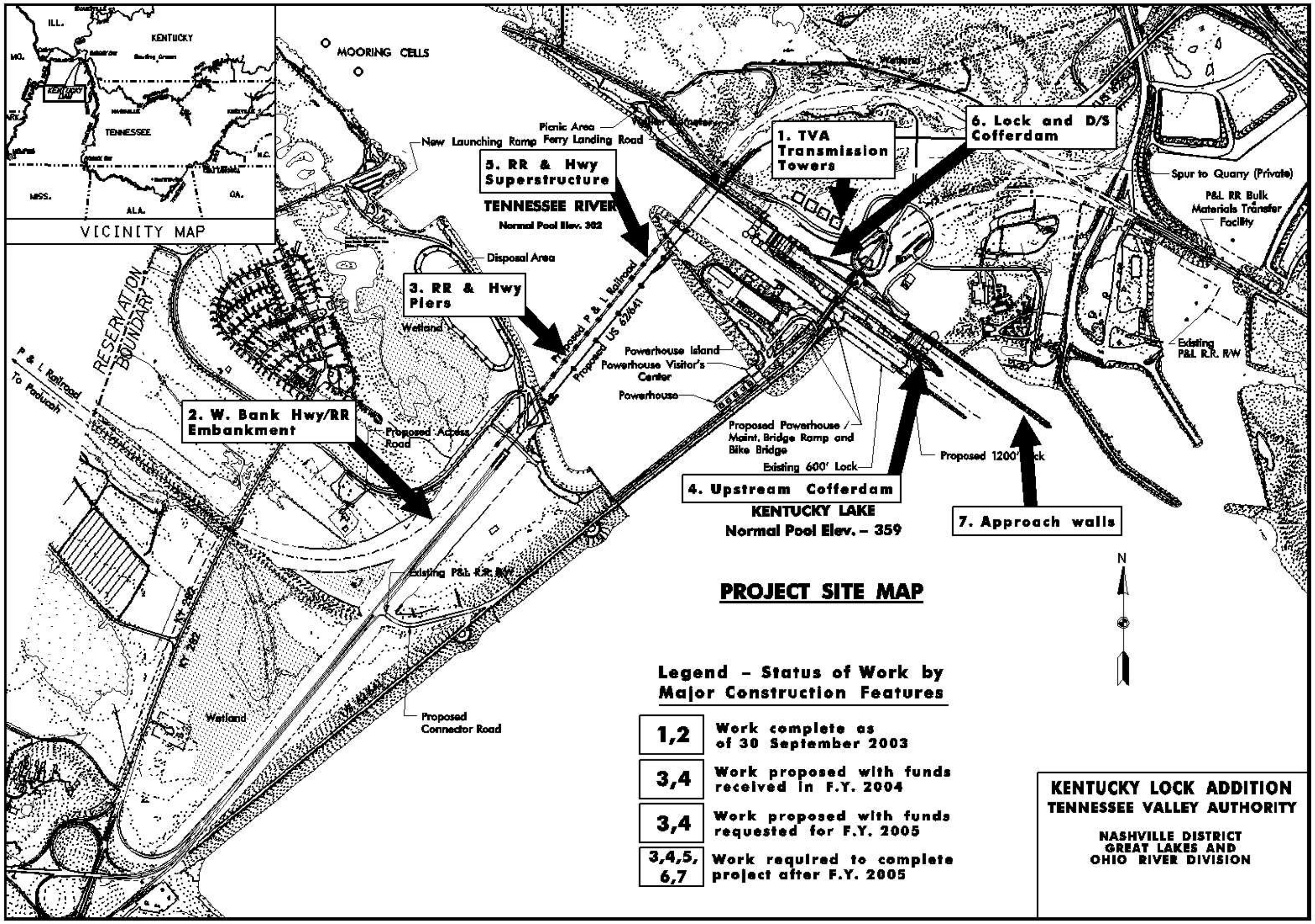
STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $641,600,000 is a decrease of $10,400,000 from the latest estimate ($652,000,000) presented to Congress (FY 2004). The change includes the following items.

Item	Amount
Price Level Updating and Inflation	$ -7,600,000
Post Contract Award and Other Estimating Changes	- 2,800,000
Total	$-10,400,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Impact Statement was included in the Final Feasibility Report and the Record of Decision was signed on 26 March 1998. A supplemental Environmental Impact Statement to address relocation feature changes and design refinements identified subsequent to the original report and Environmental Impact Statement was completed in 2001 and the Record of Decision was signed on 20 July 2001.

OTHER INFORMATION: Funds to initiate pre-construction engineering and design were appropriated in FY 1993. Funds to initiate construction were appropriated in FY 1998. The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


VICINITY MAP
KENTUCKY
TENNESSEE
ILL.
MO.
MISS.
ALA.
GA.
MOORING CELLS
Picnic Area
New Launching Ramp
Ferry Landing Road
5. RR & Hwy Superstructure
TENNESSEE RIVER
Normal Pool Elev. 302
1. TVA Transmission Towers
6. Lock and D/S Cofferdam
Spur to Quarry (Private)
P&L RR Bulk Materials Transfer Facility
Disposal Area
3. RR & Hwy Piers
Wetland
RESERVATION BOUNDARY
P & L Railroad
To Paducah
Proposed P & L Railroad
Proposed US 62/641
Powerhouse Island
Powerhouse Visitor's Center
Powerhouse
Existing P&L R.R. R/W
2. W. Bank Hwy/RR Embankment
Proposed Access Road
Proposed Powerhouse Maint. Bridge Ramp and Bike Bridge
Existing 600' Lock
Proposed 1200' Lock
4. Upstream Cofferdam
KENTUCKY LAKE
Normal Pool Elev. – 359
7. Approach walls
N
Existing P&L R.R. R/W
PROJECT SITE MAP
Legend – Status of Work by Major Construction Features
1,2 Work complete as of 30 September 2003
3,4 Work proposed with funds received in F.Y. 2004
3,4 Work proposed with funds requested for F.Y. 2005
3,4,5, 6,7 Work required to complete project after F.Y. 2005
Proposed Connector Road
Wetland
KENTUCKY LOCK ADDITION
TENNESSEE VALLEY AUTHORITY
NASHVILLE DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION

PROJECT: McAlpine Locks and Dam, Kentucky and Indiana (Continuing)

LOCATION: The project is located on the Ohio River at Louisville, Jefferson County, Kentucky, Ohio River mile 604.0 to 608.0.

DESCRIPTION: The modernization of the existing facility will replace a 600-foot auxiliary lock chamber and an inactive 360-foot 2-stage chamber with a 1,200-foot lock on the Kentucky bank side of the existing lock and dam. This effort will result in twin 1,200-foot locks for tow traffic. Construction of a new bridge is required to continue access to Shippingport Island and the Louisville Gas & Electric hydroelectric power facility. All work is programmed..

AUTHORIZATION: The Water Resources Development Act of 1990.

REMAINING BENEFIT-REMAINING COST RATIO: 4.5 to 1 at 8 percent.

TOTAL BENEFIT-COST RATIO: 1.4 to 1 at 8 percent.

INITIAL BENEFIT-COST RATIO: 1.8 to 1 at 8 percent (FY 1996).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the General Design Memorandum, Project Economic Update approved in March 1994, at 1994 price levels.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		$ 350,000,000
General Appropriations	175,000,000	
Inland Waterways Trust Fund	175,000,000	
Estimated Non-Federal Cost		0
Total Estimated Project Cost		$ 350,000,000

	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project		35	To Be Determined

PHYSICAL DATA

Wharf Extension	35,400 sf
Boat Mooring Facility	6,100 sf
Fixed Bridge	2,100 ft
Lock Chamber (New)	110 by 1,200 ft
Buildings:	
Resident Engineer	6,100 sf
Operations Service	2,300 sf
Storage	5,100 sf

	GENERAL APPNS	INLAND WATERWAYS TRUST FUNDS	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	$ 54,341,000	$ 54,341,000	
Conference Allowance for FY 2004	17,500,000	17,500,000	
Allocation for FY 2004	22,896,500 1/	22,896,500 1/	
Allocations through FY 2004	77,237,500	77,237,500	44
Allocation Requested for FY 2005	29,000,000	29,000,000	61
Programmed Balance to Complete after FY 2005	68,762,500	68,762,500	
Unprogrammed Balance to Complete after FY 2005	$ 0	$ 0	

1/ Reflects $3,872,000 reduction assigned as savings and slippage, $104,000 rescinded in accordance with the Consolidated Appropriations Act, 2004, and $9,372,500 reprogrammed to the project.

JUSTIFICATION: The existing navigation locks are on the Kentucky side of the river. They consist of a 110 by 1,200 foot main lock that was placed in operation in 1961 and two auxiliary locks that were completed in 1930 (110 by 600 foot) and 1921 (56 by 360 foot, closed since 1971). The modernization of the existing facility will replace the existing auxiliary locks with a new 110 by 1,200 foot lock. The new lock is in response to identified annual increases in tonnage levels and delays. Tonnages through the McAlpine Locks are expected to grow annually from the 1993 figure of 63.2 million tons to 127 million tons in 2060. About 40 percent of current traffic is coal. Currently, the average delay is 0.8 hours per tow. With the existing project, by the year 2060, the average delay is projected to be 40 hours per tow. With the lock addition, the average delay is projected to be 1.5 hours per tow. Other project components include a fixed bridge spanning 2,100 feet, including 840 feet of embankment, and three one-story buildings for offices, service, and storage, an industrial wharf for miter gate erection and storage, and a boat mooring facility for small workboats. Construction of the 1,200 foot lock on an efficient schedule is imperative to minimize the risks associated with operating on one lock until the new lock is operational.

Average annual benefits are as follows:

Annual Benefits	Amount
Navigation from Reduced Delays	$ 41,621,800
Total	$ 41,621,800

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Lock Construction	$ 53,772,000
Continue Bridge Construction	1,700,000
Planning, Engineering, and Design	385,000
Construction Management	2,143,000
Total	$ 58,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total cost of construction will be derived from the Inland Waterways Trust Fund.

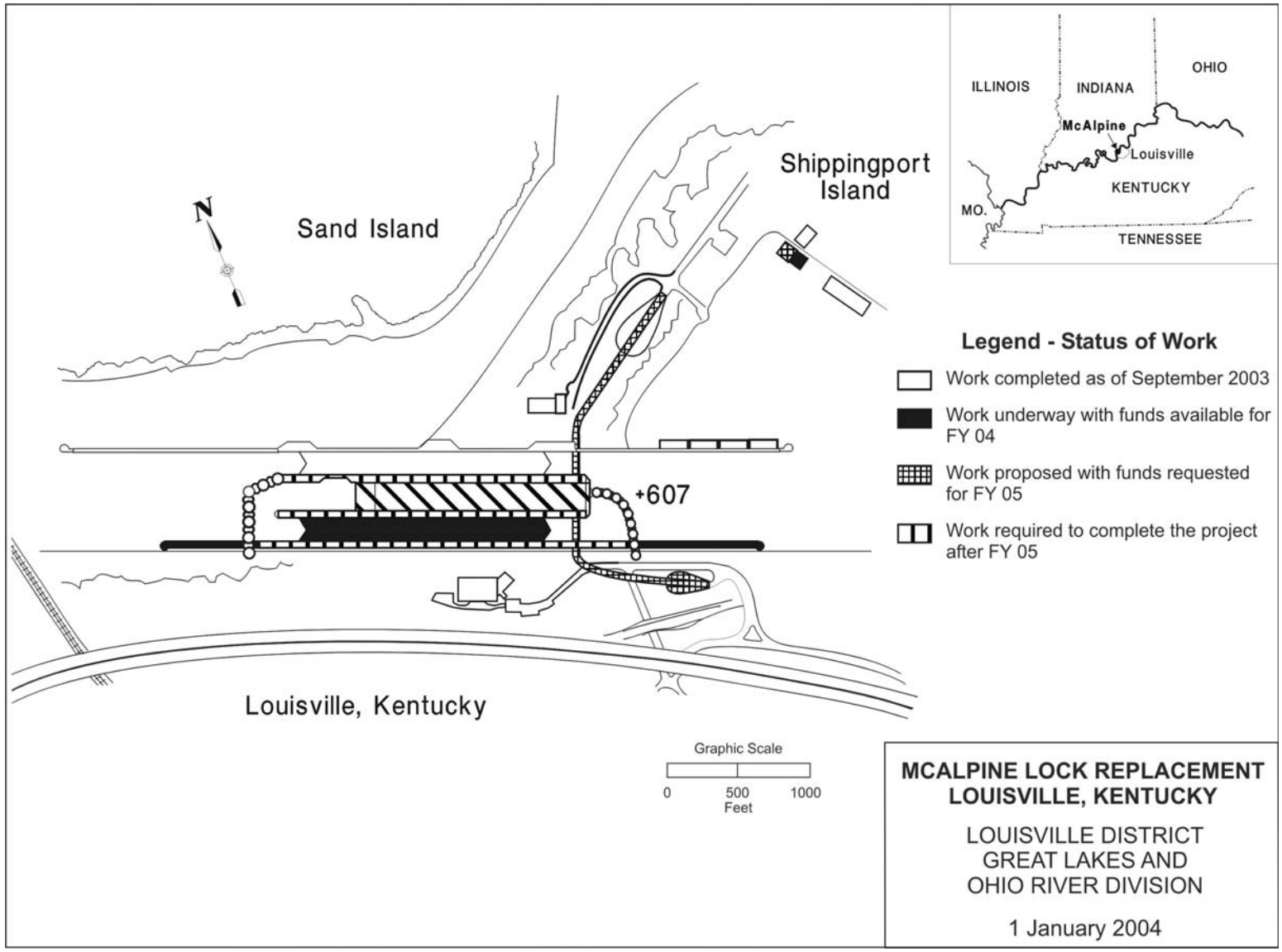
STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $350,000,000 is an increase of $12,000,000 from the latest estimate ($338,000,000) presented to Congress (FY 2004). The change includes the following items.

Item	Amount
Post contract award and other estimating adjustments	$ 12,000,000
Total	$ 12,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) and a Finding of No Significant Impacts (FONSI) have been signed and included in the Final Feasibility Report. In addition, a Section 404 (b) (1) Evaluation has been completed and 401 Water Quality Certification has been obtained from the Kentucky Division of Water. The final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency in August, 1990. A supplemental EIS updating project requirements was completed in FY 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1990. Funds to initiate construction were appropriated in FY 1996. The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


Sand Island
Shippingport Island
+607
Louisville, Kentucky
Graphic Scale
0
500
1000
Feet
ILLINOIS
INDIANA
OHIO
McAlpine
Louisville
KENTUCKY
MO.
TENNESSEE
Legend - Status of Work
Work completed as of September 2003
Work underway with funds available for FY 04
Work proposed with funds requested for FY 05
Work required to complete the project after FY 05
MCALPINE LOCK REPLACEMENT
LOUISVILLE, KENTUCKY
LOUISVILLE DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION
1 January 2004

APPROPRIATION TITLE: Construction General - Locks and Dams (Navigation)

PROJECT: Locks and Dams 2, 3 and 4, Monongahela River, Pennsylvania (Continuing)

LOCATION: Existing Locks and Dams 2, 3, and 4 are the last of the old and undersized locks on the Monongahela River system and have components which have been in service for nearly 100 years. The three projects are located on the lower portion of the Monongahela River near the city of Pittsburgh, Pennsylvania and are located in Allegheny, Washington and Westmoreland Counties. Measured from the Point in Pittsburgh, Locks and Dam 2 is located at river mile 11.2, Locks and Dam 3 at river mile 23.8, and Locks and Dam 4 at river mile 41.5. Six other navigation projects situated upstream of Locks and Dam 4 provide a navigable waterway to Fairmont, West Virginia. At the Point in Pittsburgh, the Monongahela River joins with the Allegheny River to form the Ohio River.

DESCRIPTION: Existing Locks and Dam 2 consists of a main lock with chamber dimensions of 110 by 720 feet, an auxiliary lock with chamber dimensions of 56 by 360 feet, and a 748-foot fixed-crest dam. Existing Locks and Dam 3 consists of locks with chamber dimensions of 56 by 720 feet and 56 by 360 feet and a 670-foot fixed-crest dam. Existing Locks and Dam 4 consists of locks with chamber dimensions of 56 by 720 feet and 56 by 360 feet and a gated dam consisting of five 84-foot gated sections and a 43-foot fixed weir section. The authorized projects consist of a new gated dam and a rehabilitated auxiliary chamber floodway bulkhead structure at Locks and Dam 2; new twin 84 by 720 foot locks and below-dam scour protection of Locks and Dam 4; raising pool 2 by 5 feet and lowering pool 3 by 3.2 feet; removal of Locks and Dam 3; and associated channel dredging, relocations and bank stabilization. Construction began in FY 1995 with the upgrade of the Locks 2 auxiliary chamber floodway bulkhead and relocations. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1992.

REMAINING BENEFIT - REMAINING COST RATIO: 2.2 to 1 at 8 1/4 percent.

TOTAL BENEFIT - COST RATIO: 1.6 to 1 at 8 1/4 percent.

INITIAL BENEFIT-COST RATIO: 4.2 to 1 at 8 1/4 percent (FY 1995).

BASIS OF BENEFIT - COST RATIO: The initial Benefit-Cost ratio is based upon the Feasibility Report dated December 1991. The Remaining Benefit – Remaining Cost and Total Benefit – Cost ratios are based upon report entitled “Lower Monongahela River, Reassessment of Authorized Project” dated January 2002.

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 750,000,000	Entire Project	32	To Be Determined
General Appropriations	375,000,000				
Inland Waterway Trust Fund	375,000,000				
Estimated Non-Federal Cost		0			
Total Estimated Project Cost		$ 750,000,000			

	GENERAL APPNS.	INLAND WATERWAYS TRUST FUND		ACCUM. PCT.OF EST. FED.COST
Allocations to 30 September 2003	$ 125,012,000	$ 125,012,000		
Conference Allowance for FY 2004	18,750,000	18,750,000		
Allocation for FY 2004	14,490,000 1/	14,490,000	2/	
Allocation thru FY 2004	139,502,000	139,502,000		37
Allocation Requested for FY 2005	15,500,000	15,500,000		41
Programmed Balance to Complete after FY 2005	219,998	219,998		
Unprogrammed Balance to Complete after FY 2005	0	0		

1/ Reflects $4,149,000 reduction assigned as savings and slippage and $111,000 rescinded in accordance with the Consolidated Appropriations Act, 2004.
2/ Reflects $4,149,000 reduction assigned as savings and slippage and $111,000 rescinded in accordance with the Consolidated Appropriations Act, 2004.

PHYSICAL DATA

Locks and Dams 2 and 3:
- New gated dam 2
- Rehabilitated Auxiliary Chamber Floodway L&D 2
- Bulkhead Structure L&D 2
- Remove Locks and Dam 3
- Raise pool 2 by 5 feet and lower pool 3 by 3.2 feet

Locks and Dam 4:
- New twin 84 by 720 foot locks
- Scour Protection

JUSTIFICATION: The projects are located on the Monongahela River near Pittsburgh. The major problems with the projects are deteriorated structural condition and limited lock capacity. These problems are expected to become increasingly severe as the projects age. The extreme structural deterioration of Dam 2 and Locks and Dam 3 is of paramount concern. Major repairs and rehabilitation will not prevent structural failure. The probability of major structural failure and catastrophic loss of navigation pools is unacceptable. The completion of the new gated Braddock Dam, now under construction at Locks and Dam 2, together with completion of the Pool 2 relocations and raising of Pool 2, will provide significant risk mitigation while the balance of the authorized plan is under design and construction. The continued viability of the Lower Monongahela River navigation system is vital to southwestern Pennsylvania and northeastern West Virginia. For example, CONSOL Energy's Alicia Dock, located along the Monongahela River near Brownsville, PA, is a new transshipment facility with the capacity to throughput 6 million tons of coal annually. Coal is transferred from rail cars directly onto river barges, or can be stored on site up to 200,000 tons capacity. This facility will benefit from the improved reliability and efficiency to be provided by the projects. Average annual benefits are as follows:

Annual Benefits	Amount
Commercial Navigation (Shallow Draft Locks)	$ 150,000,000
Replacement of Shore side Utilities	2,600,000
Total	$152,600,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Real Estate Acquisition	500,000
Continue Construction	16,500,000
Planning, Engineering and Design	5,500,000
Continue Construction Management	2,500,000
Relocations	6,000,000
Total	$ 31,000,000

NON-FEDERAL COSTS: In accordance with the cost-sharing and financing concepts reflected in the Water Resource Development Act of 1986, 50% of the total cost of construction will be derived from the Inland Waterways Trust Fund.

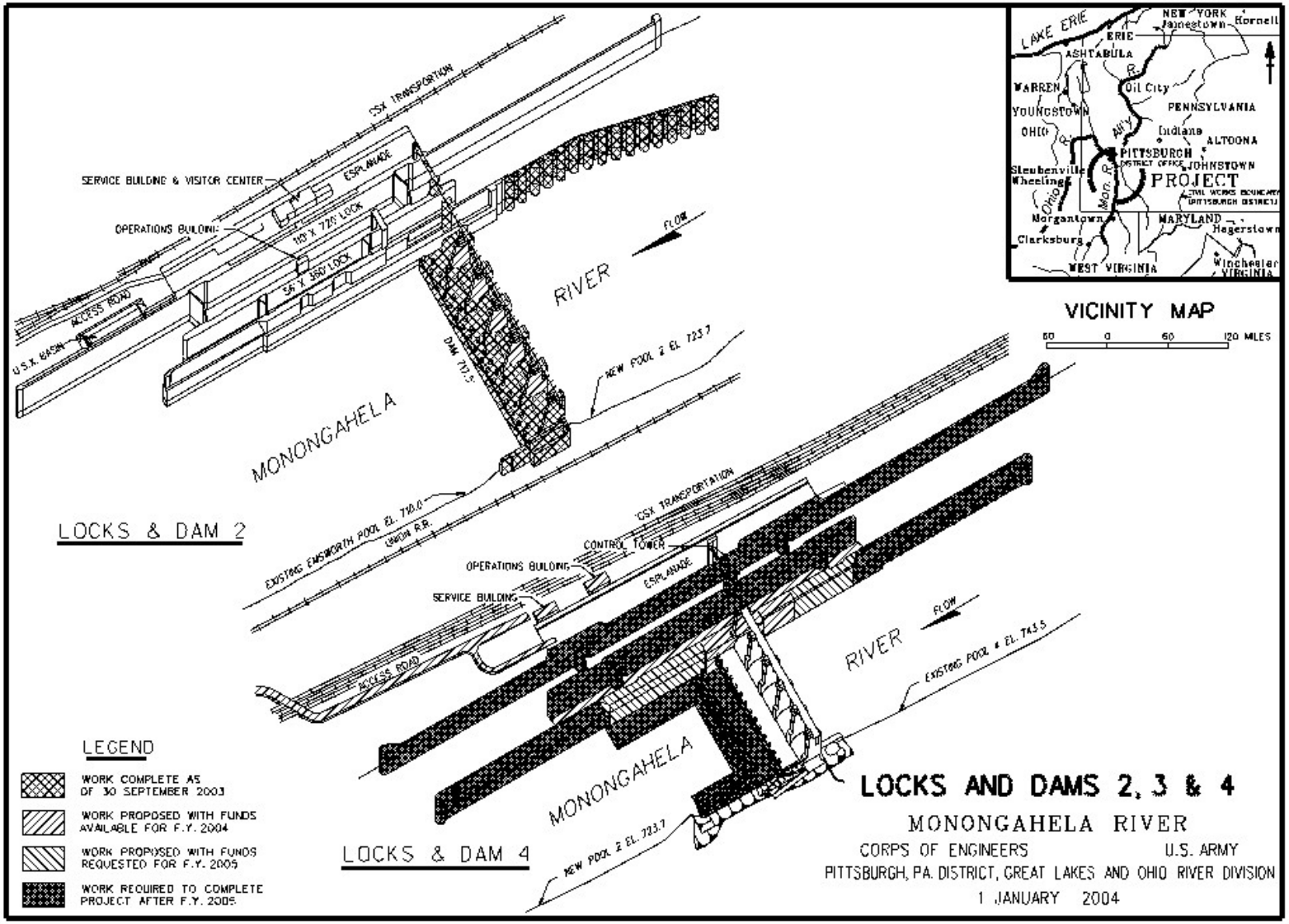
Construction of the projects will require modification to privately owned shore side facilities and submarine utility crossings, which were all constructed under Department of the Army permits pursuant to Section 10 of the Rivers and Harbors Act, approved March 3, 1899. The estimated cost to owners of adapting these facilities to new project conditions is $111,000,000.

STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $750,000,000 remains unchanged from the last estimate presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency on January 28, 1992. The Director of Civil Works signed the Record of Decision on December 17, 1992. A Supplemental Environmental Impact Statement on Project Disposal and various other Environmental Assessments, all-resulting in Finding of No Significant Impacts has been completed pursuant to NEPA.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1992. Funds to initiate construction were appropriated in FY 1995. The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


LOCKS & DAM 2
LOCKS & DAM 4
MONONGAHELA
RIVER
FLOW
CSX TRANSPORTATION
SERVICE BUILDING & VISITOR CENTER
ESPLANADE
OPERATIONS BUILDING
110' X 720' LOCK
56' X 360' LOCK
ACCESS ROAD
U.S.X. BASIN
DAM 703.5
NEW POOL 2 EL. 723.7
EXISTING EMSWORTH POOL EL. 710.0
UNION R.R.
CONTROL TOWER
SERVICE BUILDING
EXISTING POOL 4 EL. 743.5
LEGEND
WORK COMPLETE AS OF 30 SEPTEMBER 2003
WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2005
WORK REQUIRED TO COMPLETE PROJECT AFTER F.Y. 2005
LAKE ERIE
NEW YORK
Jamestown
Hornell
ERIE
ASHTABULA
WARREN
Oil City
YOUNGSTOWN
PENNSYLVANIA
OHIO
Allegheny R.
Indiana
ALTOONA
PITTSBURGH
DISTRICT OFFICE
JOHNSTOWN
Steubenville
Wheeling
Ohio R.
Mon. R.
PROJECT
CIVIL WORKS BOUNDARY
PITTSBURGH DISTRICT
Morgantown
MARYLAND
Hagerstown
Clarksburg
WEST VIRGINIA
Winchester
VIRGINIA
VICINITY MAP
60 0 60 120 MILES
LOCKS AND DAMS 2, 3 & 4
MONONGAHELA RIVER
CORPS OF ENGINEERS U.S. ARMY
PITTSBURGH, PA. DISTRICT, GREAT LAKES AND OHIO RIVER DIVISION
1 JANUARY 2004

APPROPRIATION TITLE: Construction, General - Locks and Dams (Navigation)

APPROPRIATION TITLE: Construction General - Locks & Dams (Navigation)

PROJECT: Marmet Locks and Dam, West Virginia (Continuing)

LOCATION: Marmet Locks and Dam is located in Kanawha County near Belle, West Virginia, on the Kanawha River approximately 68 miles above its confluence with the Ohio River. The pool is located entirely in West Virginia.

DESCRIPTION: The proposed modernization plan includes the construction of an additional 110 foot by 800 foot lock on the right descending bank landward of the existing locks. The plan includes the continued use of both existing 56 foot by 360 foot lock chambers as auxiliary locks. The existing dam and the hydroelectric power plant will also remain in operation. A total of 216 additional real estate tracts will be required to support the project. Of the 216 tracts, 179 are residential, 9 are commercial and 28 are vacant. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 6.8 to 1 at 7 5/8 percent.

TOTAL BENEFIT-COST RATIO: 2.9 to 1 at 7 5/8 percent.

INITIAL BENEFIT-COST RATIO: 3.3 to 1 at 7 5/8 percent (FY 1998).

BASIS OF BENEFIT-COST RATIO: Economic Update dated June 1996 and at October 1995 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$333,000,000	Entire Project	26	To Be Determined
Construction General	166,500,000				
Inland Waterways Trust Fund	166,500,000				
Total Estimated Project Cost		$333,000,000			

SUMMARIZED FINANCIAL DATA (Continued)

	GENERAL APPNS.		INLAND WATERWAYS TRUST FUNDS		ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	$ 57,067,486		$ 57,067,486		
Conference Allowance for FY 2004	32,600,000		32,600,000		
Allocation for FY 2004	24,242,000	1/	24,242,000	2/	
Allocations through FY 2004	81,309,486		81,309,486		49
Allocation Requested for FY 2005	25,000,000		25,000,000		64
Programmed Balance to Complete after FY 2005	60,190,514		60,190,514		
Unprogrammed Balance to Complete after FY 2005	0		0		

1/ Reflects $ 7,214,000 reduction assigned as savings and slippage, $193,000 rescinded from the project in accordance with the Consolidated Appropriations Act, 2004, and $951,000 reprogrammed from the project.
2/ Reflects $ 7,214,000 reduction assigned as savings and slippage, $193,000 rescinded from the project in accordance with the Consolidated Appropriations Act, 2004, and $951,000 reprogrammed from the project.

PHYSICAL DATA

Lock:
- Number – 3
- Existing Chambers - 2 - 56 ft. x 360 ft.
- Additional Chamber - 1 - 110 ft. x 800 ft.
- Lift - 24 ft.

Lands and Damages:
- Acres - 21, Existing Locks and Dam
- 103, New Lock
- Structures - 242 Residences
- 10 Businesses

JUSTIFICATION: Marmet Locks and Dam links the Kanawha Valley, an important chemical and coal producing area, to its product markets and supply areas. During 2002, 13.5 million tons of traffic locked through Marmet. Coal is the major commodity shipped on the Kanawha River, accounting for over 93 percent of the total tonnage. The Marmet project presents a significant impediment to the efficient flow of waterborne commerce due to its outdated features. Amendments to the Clean Air Act, passed in November 1990, have caused an increase in demand for the Kanawha River Basin's low-sulphur coal. When the new Winfield lock came on line in November 1997, the industry's helper boats relocated from Winfield to Marmet. Lockages at Marmet immediately increased 30% to 50% in magnitude. The congestion is expected to increase as traffic on the river increases.

The average annual benefits total $77,508,000, all commercial navigation.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Lock Construction	$ 43,050,000
Continue Environmental Mitigation	930,000
Complete Cultural Mitigation	450,000
Planning, Engineering and Design	2,585,000
Construction Management	2,985,000
Total	$ 50,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing contained in the Water Resources Development Act of 1986, 50 percent of the total costs of construction will be derived from the Inland Waterways Trust Fund.

STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $333,000,000 is unchanged from the latest estimate presented to Congress (FY 2004).

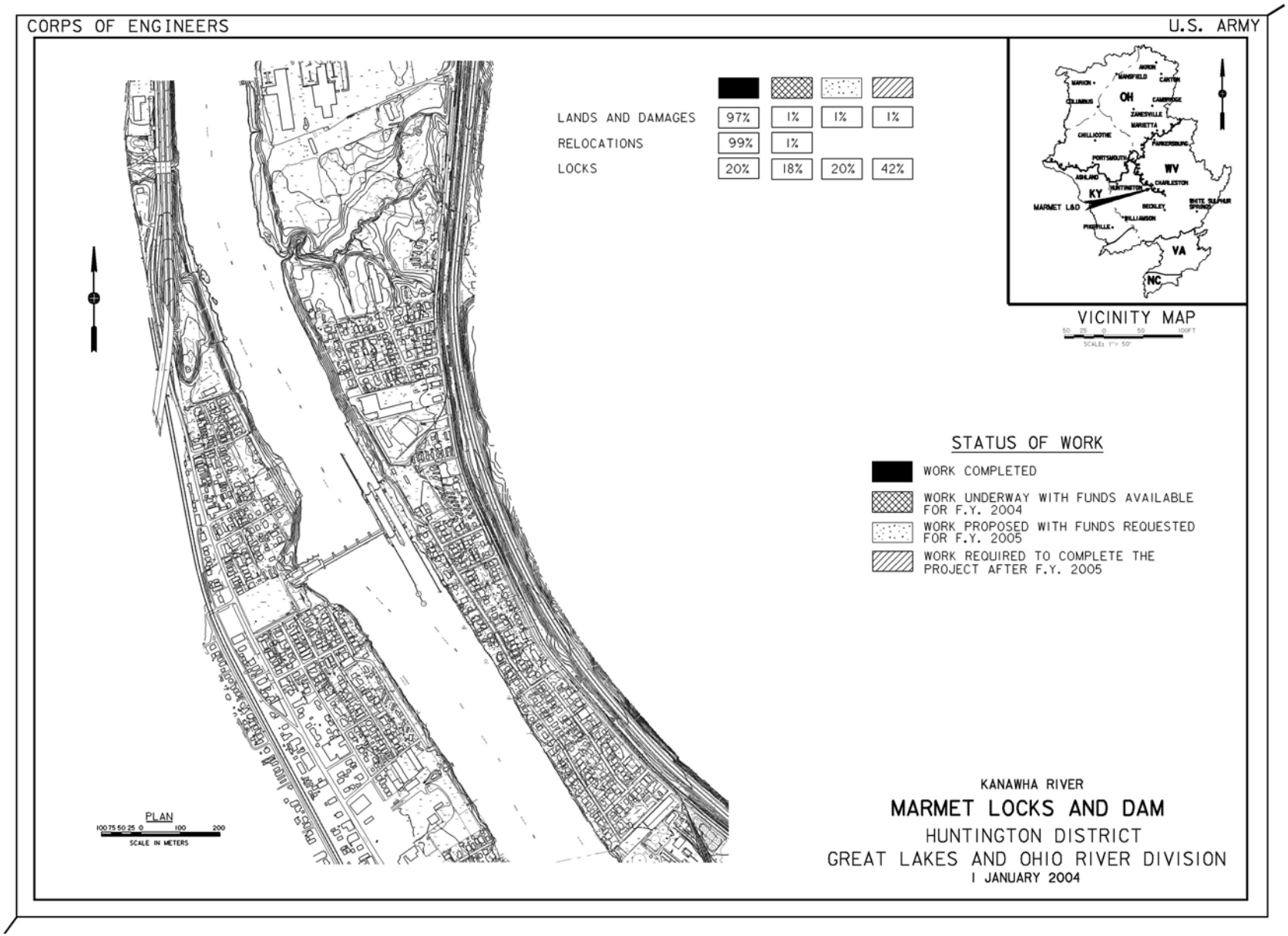
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with the Environmental Protection Agency (EPA) on January 26, 1994.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1994. Funds to initiate construction were appropriated in FY 1998.

Environmental Site Assessments (Phase I and II) identified soil contamination at levels sufficient to warrant remedial activity. None of the contamination identified is considered hazardous; rather, it is a non-hazardous contaminant which requires that the soil be disposed of in a landfill in conformance with Subtitle D of the Resource Conservation and Recovery Act (RCRA). No groundwater contamination was found.

The Corps developed plans for the new lock construction to have minimum interference with river traffic during construction, but some interference is expected. The Corps established dialogue with the towing industry to determine the best methods to use to minimize interference. Installation of additional navigation mooring facilities was completed in December 2002. A helper boat is being used to alleviate construction impacts associated with cofferdam construction.

The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


CORPS OF ENGINEERS
U.S. ARMY
LANDS AND DAMAGES
97%
1%
1%
1%
RELOCATIONS
99%
1%
LOCKS
20%
18%
20%
42%
OH
WV
KY
VA
NC
MARMET L&D
VICINITY MAP
STATUS OF WORK
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR F.Y. 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2005
PLAN
SCALE IN METERS
KANAWHA RIVER
MARMET LOCKS AND DAM
HUNTINGTON DISTRICT
GREAT LAKES AND OHIO RIVER DIVISION
1 JANUARY 2004

APPROPRIATION TITLE: Construction, General - Locks and Dams (Navigation)

PROJECT: Robert C. Byrd Locks and Dam (formerly Gallipolis Locks and Dam), West Virginia and Ohio (Continuing)

LOCATION: The project is situated in the Middle Ohio Valley at Ohio River mile 279.2, approximately 14 miles downstream from the mouth of the Kanawha River in West Virginia and approximately 30 miles upstream from the City of Huntington, West Virginia. The new locks are in Mason County, West Virginia and the abutment of the dam is in Gallia County, Ohio.

DESCRIPTION: The project includes the rehabilitation of the non-navigable, high-lift, gated, existing dam and construction of a new 1200 by 110 foot main lock and a new 600 by 110 foot auxiliary lock in a canal extending across a slight bend in the river, bypassing the existing locks and dam on the left descending (West Virginia) bank. The canal, in effect, straightens the river bend and provides a relatively straight down-bound approach for several miles. All work is programmed.

AUTHORIZATION: River and Harbor Act of 1935, Supplemental Appropriations Act, 1985, and the Water Resources Development Act of 1986. The Water Resources Development Act of 1992, Section 118, changed the project name to the Robert C. Byrd Locks and Dam. The Water Resources Development Act of 2000, Section 548, added authorization to preserve and restore the General Jenkins House at Lesage/Greenbottom Swamp.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because construction of the project is substantially complete.

TOTAL BENEFIT-COST RATIO: Not applicable because construction of the project is substantially complete.

INITIAL BENEFIT-COST RATIO: 11.3 to 1 at 8 1/8 percent (FY 1985).

BASIS OF BENEFIT-COST RATIO: General Design Memorandum, dated November, 1982, at October, 1982 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
New Construction Work			Entire Project	98	To Be Determined
Estimated Federal Cost		$ 310,200,000	Lock Construction	100	Jan 1993
General Appropriations	155,100,000		Mitigation Sites	99	To Be Determined
Inland Waterways Trust Fund	155,100,000		Dam Rehabilitation	99	To Be Determined
			Jenkins House Restoration	15	To Be Determined

SUMMARIZED FINANCIAL DATA (Continued)

Dam Rehabilitation		
Estimated Federal Cost		$ 70,800,000
General Appropriations	35,400,000	
Inland Waterways Trust Fund	35,400,000	
Total Estimated Federal Cost		$ 381,000,000
General Appropriations	190,500,000	
Inland Waterways Trust Fund	190,500,000	
Estimated Non-Federal Cost		0
Total Estimated Project Cost		$ 381,000,000

	GENERAL APPNS.	INLAND WATERWAYS TRUST FUNDS	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	$188,105,000 1/	$188,105,000	
Conference Allowance for FY 2004	1,250,000	1,250,000	
Allocation for FY 2004	685,000 2/	685,000 3/	
Allocations through FY 2004	188,790,000	188,790,000	99
Allocation Requested for FY 2005	300,000	300,000	99
Programmed Balance to Complete after FY 2005	1,410,000	1,410,000	
Unprogrammed Balance to Complete after FY 2005	0	0	

1/ Allocations thru FY03 include $9,526,000 paid by the Department of Treasury Judgment Fund for settled claim.
2/ Reflects $277,000 reduction assigned as savings and slippage, $7,000 rescinded in accordance with the Consolidated Appropriations Act, 2004, and $281,000 reprogrammed from the project.
3/ Reflects $277,000 reduction assigned as savings and slippage, $7,000 rescinded in accordance with the Consolidated Appropriations Act, 2004, and $281,000 reprogrammed from the project.

PHYSICAL DATA

Bypass Canal:
- Length - 1.7 miles
- Bottom Width - 500 feet (min)

Locks:
- Number - 2
- Main Lock - 110 x 1,200 feet
- Auxiliary Lock - 110 x 600 feet

Dam:
- Major rehabilitation of the existing navigation dam to include replacing the dam roller gates and strengthening the foundation.

Lands and Damages:

Total existing easement area	1798 acres
Existing locks and dam	82 acres
New locks and canal	546 acres
Mitigation	837 acres
Dam rehabilitation	28 acres

JUSTIFICATION: Completion of the new locks has enabled tows to transit the project area efficiently and has completed a series of 110 by 1200 foot locks from near Pittsburgh to Cairo, Illinois. Reduced delays and transportation costs are benefiting the economy of the Nation directly and indirectly. The project is strategically located between the highly industrialized upper Ohio River Basin area and its product markets and supply regions. Robert C. Byrd Locks and Dam captures a significant portion of the commodities transiting the Ohio River. The traffic levels (number of lockages) have decreased and volume of commodities have increased at Robert C. Byrd Locks and Dam, as forecast in the authorization document. Between the years of 1993 and 2002, traffic has ranged from 51.2 to 58.1M tons annually.

The new locks and the dam rehabilitation also remedy problems associated with the age, condition, and hazardous location of the existing facilities. The existing locks and dam are over 50 years old and have been increasingly difficult to operate and maintain. Lock outages have been a major problem and would have become very critical in the future. Accident reports and information from the navigation industry documented that the existing facilities were unsafe due to the location of the locks and velocities generated during above normal river conditions.

Average annual benefits for the project are estimated as follows:

Annual Benefits	Amount
Commercial Navigation	$123,892,000
Recreation	140,000
Total	$124,032,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

	New Construction	Major Rehabilitation
Complete Archeological Investigations	$ 220,000	0
Complete Mitigation Wetlands	86,000	0
Planning, Engineering and Design (Jenkins House)	294,000	0
Total	$ 600,000	0

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total costs of construction will be derived from Inland Waterways Trust Fund. The West Virginia Division of Natural Resources will be responsible for operation and management of mitigation lands at an estimated average annual cost of $55,000 for the Greenbottom area and $345,000 for the on-site mitigation (fish hatchery). The West Virginia Division of Culture and History annual O&M cost for the General Jenkins House is estimated to be $30,000.

STATUS OF LOCAL COOPERATION: The West Virginia Division of Natural Resources by lease agreement has assumed responsibility for operation and management of the off-site mitigation area. The General Jenkins House has been subleased to the West Virginia Division of Culture and History. The Corps is in the process of turning the completed onsite mitigation fish hatchery in fee over to the State of West Virginia Division of Natural Resources.

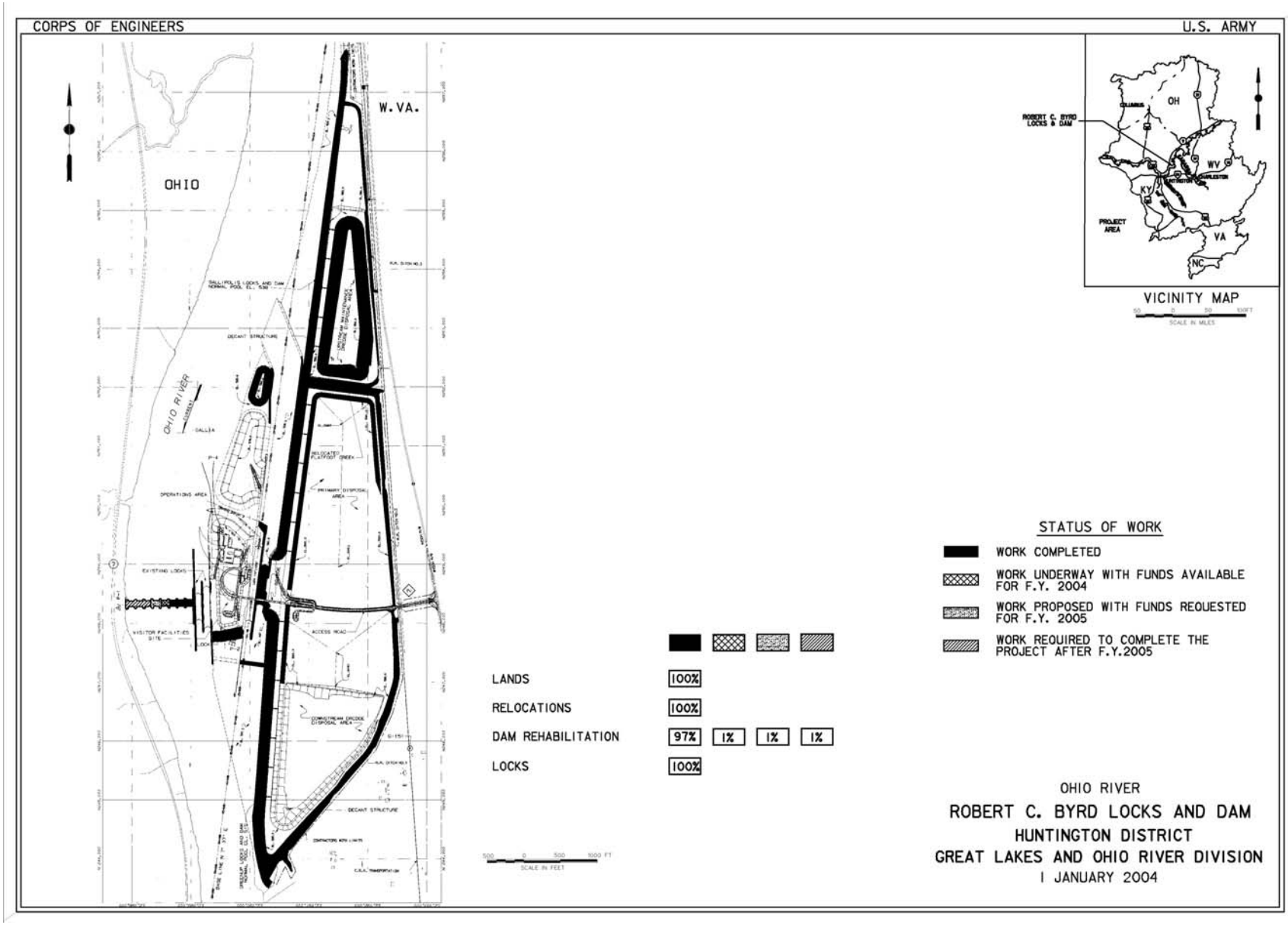
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $381,000,000 is unchanged from the latest estimate presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (EIS) was filed with Environmental Protection Agency on January 8, 1981. Supplement I to the EIS was filed on October 30, 1991.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1984. Funds to initiate construction were appropriated in FY 1985. The Water Resources Development Act (WRDA) of 1992, Section 118, changed the project name to the Robert C. Byrd Locks and Dam.

The Water Resources Development Act of 2000, Section 548, includes authority to preserve and restore the General Jenkins House, which is located at the Greenbottom Wildlife Management Area. The Corps is working with the West Virginia Division of Culture and History and interested local historical groups to develop a strategy to implement the provisions of WRDA 2000. The scope and total cost of the restoration has not yet been developed.

The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


CORPS OF ENGINEERS
U.S. ARMY
W. VA.
OHIO
OHIO RIVER
ROBERT C. BYRD LOCKS & DAM
COLUMBUS
OH
WV
KY
PROJECT AREA
VA
NC
VICINITY MAP
SCALE IN MILES
STATUS OF WORK
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR F.Y. 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y.2005
LANDS 100%
RELOCATIONS 100%
DAM REHABILITATION 97% 1% 1% 1%
LOCKS 100%
SCALE IN FEET
OHIO RIVER
ROBERT C. BYRD LOCKS AND DAM
HUNTINGTON DISTRICT
GREAT LAKES AND OHIO RIVER DIVISION
1 JANUARY 2004

APPROPRIATION TITLE: Construction General - Locks & Dams (Navigation)

PROJECT: Winfield Locks and Dam, West Virginia (Continuing)

LOCATION: Winfield Locks and Dam is located in Putnam County, West Virginia, on the Kanawha River near Eleanor, approximately 31 miles above the confluence with the Ohio River. The pool is located entirely in West Virginia.

DESCRIPTION: The modernization plan includes the construction of an additional 110 by 800 foot lock on the right descending bank landward of the existing locks and a 110-foot wide non-navigable gate bay between the old lock and the new lock. The new lock will be skewed six degrees landward (upstream to downstream) from the existing locks. The plan includes the continued use of both existing 56 by 360 foot lock chambers as auxiliary locks. The existing dam also will remain in use. All work is programmed.

AUTHORIZATION: The Supplemental Appropriations Act, 1985 for engineering and design and land acquisition, and the Water Resources Development Act of 1986 for construction.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because construction of the project is substantially complete.

TOTAL BENEFIT-COST RATIO: Not applicable because construction of the project is substantially complete.

INITIAL BENEFIT-COST RATIO: 6.2 to 1 at 8 5/8 percent (FY 1987).

BASIS OF BENEFIT-COST RATIO: Design Memorandum No. 1, General Design Memorandum, dated April, 1988.

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$236,000,000	Entire Project	99	To Be Determined
General Appropriations	118,000,000		Locks Operational	100	Nov 1997
Inland Waterways Trust Fund	118,000,000				
Estimated Non-Federal Cost		0			
Total Estimated Project Cost		$236,000,000			

SUMMARIZED FINANCIAL DATA (Continued)

	GENERAL APPNS.		INLAND WATERWAYS TRUST FUND		ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	$113,888,828		$113,888,828		
Conference Allowance for FY 2004	1,000,000		1,000,000		
Allocation for FY 2004	150,000	1/	150,000	2/	
Allocations through FY 2004	114,038,828		114,038,828		97
Allocation Requested for FY 2005	1,500,000		1,500,000		98
Programmed Balance to Complete after FY 2005	2,461,172		2,461,172		
Unprogrammed Balance to Complete after FY 2005	0		0		

1/ Reflects $221,000 reduction assigned as savings and slippage, $6,000 rescinded in accordance with the Consolidated Appropriations Act, 2004, and $623,000 reprogrammed from the project.
2/ Reflects $221,000 reduction assigned as savings and slippage, $6,000 rescinded in accordance with the Consolidated Appropriations Act, 2004, and $623,000 reprogrammed from the project.

PHYSICAL DATA

Lock:
Number - 1
Chamber - 110 by 800 ft.
Lift - 28 ft.

Lands and Damages:
Acres - 1,243 easement
- 41 for existing Locks and Dam
- 316 for new Lock

New Lock Site:
Mobile home park (37 units), two active industries, and one inactive industry.

JUSTIFICATION: Winfield Locks and Dam links the Kanawha Valley, an important chemical and coal producing area, to its product markets and supply areas. Up-bound traffic through Winfield is composed of important supplies of chemicals, feedstocks, aggregates, and petroleum fuels. Down-bound traffic is composed largely of coal produced in the upper Kanawha River Basin and destined for electric generating facilities and coking plants throughout the middle and upper Ohio River Basin. Since 1990, Winfield locks has averaged over 21.1 million tons of traffic a year. During 2002, 17.6 million tons of traffic locked through Winfield. Coal accounts for approximately 75 percent of the total tonnage.

The Winfield project presented a significant impediment to the efficient flow of waterborne commerce due to its outdated features. Before the new chamber came on-line in November 1997, only 30 percent of the barges processed at Winfield were the size that the project originally was designed to serve and only two percent of the tows were small enough to be locked in a single operation. The average delay per tow was 4.0 hours in 1996 with an average of over 4 lockages per tow. The total processing time (lockage plus delay time) was 6.7 hours, the highest in the Ohio River system. Navigation safety has not been a major problem at Winfield Locks, but the potential for navigation accidents was present. The problem stemmed from the orientation of the locks and the design of the lock walls. The 56' X 360' locks are located on the inside of a bend in the river that requires tows to make several maneuvers to enter and exit the locks. This is especially difficult during high river flows. With 800 foot long tows becoming more common, the short upper guard wall also presents a problem. The upper guard wall is only 450 feet long, which means that about half of a tow extends beyond the end of the wall as lockage progresses. This presents a danger that the tow might break up and be swept down on the dam during high-flow conditions. As the number of large tows increases at Winfield, the probability of accidents occurring in such instances also increases.

Average annual benefits for the project total $65,070,000, all for commercial navigation.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Construct Systems Mitigation	2,550,000
Continue Planning, Engineering and Design	240,000
Continue Construction Management	210,000
Total	$ 3,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total costs of construction will be derived from the Inland Waterways Trust Fund.

STATUS OF LOCAL COOPERATION: Upon completion of the project, a Memorandum of Agreement will be prepared between West Virginia Division of Natural Resources (WVDNR) and the Corps of Engineers for WVDNR to assume responsibility for operation and management of the mitigation area. Annual costs are estimated to be $30,000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $236,000,000 is an increase of $100,000 from the latest estimate ($235,900,000) presented to Congress (FY 2004). This change includes the following item.

Item	Amount
Price Escalation on Construction Features	$100,000
Total	$100,000

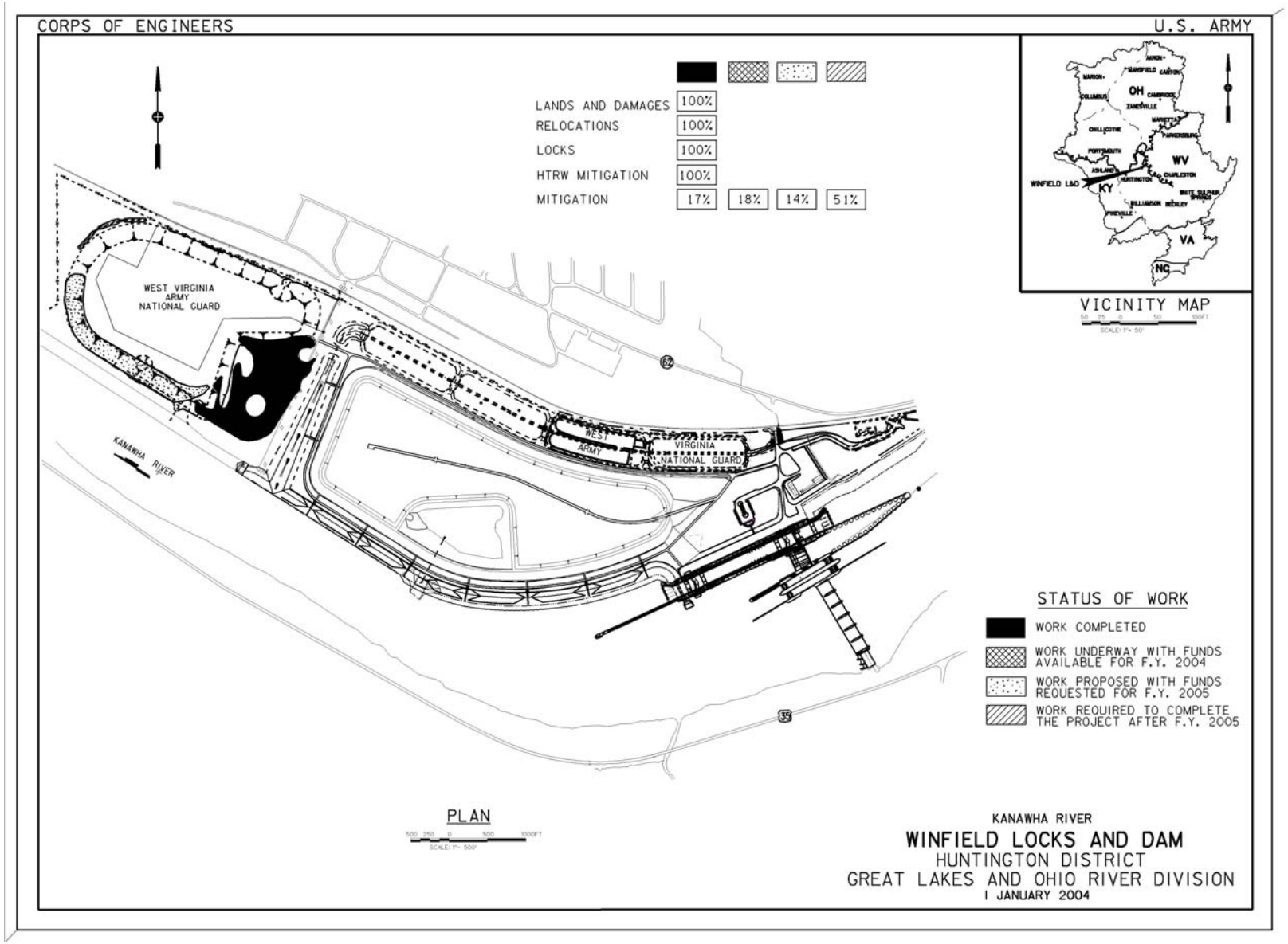
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency on September 25, 1987. The Ohio River Division Commander signed a Supplemental Environmental Impact Statement (SEIS) on April 28, 1993. The SEIS was prepared because of the need to realign the new lock as a result of hydraulic model testing.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1985 and funds to initiate construction were appropriated in FY 1987.

Hazardous and toxic substances found on the site were removed by former landowner, ACF Industries. Temporary buildings constructed for storage of hazardous materials will be transferred to the National Guard Bureau for controlled storage of equipment. A License Agreement between the Corps and National Guard has been signed allowing the Guard to use the facility until the transfer papers are finalized. The West Virginia National Guard is constructing a complex that would include a combined support maintenance shop, organizational maintenance shop, and armory facility on thirty acres of the downstream disposal area. A License Agreement has been signed for this as well. The thirty acres will be included in the final transfer document. Because this construction would affect the mitigation agreement between the Corps and resource agencies, a memorandum of agreement was executed between the National Guard, the resource agencies, and the Corps for off-site mitigation to replace mitigation acreage lost due to transfer to the Guard.

Prospective identification and construction of systems mitigation features remain for the project. A team comprised of the US Fish and Wildlife Service, West Virginia Division of Natural Resources, and Corps of Engineers is working to determine whether and what type of systems mitigation is required.

The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


CORPS OF ENGINEERS
U.S. ARMY
LANDS AND DAMAGES 100%
RELOCATIONS 100%
LOCKS 100%
HTRW MITIGATION 100%
MITIGATION 17% 18% 14% 51%
WEST VIRGINIA ARMY NATIONAL GUARD
KANAWHA RIVER
62
35
VICINITY MAP
OH
WV
KY
VA
NC
WINFIELD L&D
PLAN
STATUS OF WORK
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR F.Y. 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2005
KANAWHA RIVER
WINFIELD LOCKS AND DAM
HUNTINGTON DISTRICT
GREAT LAKES AND OHIO RIVER DIVISION
1 JANUARY 2004

APPROPRIATION TITLE: Construction, General – Shoreline Protection

PROJECT: Chicago Shoreline, Illinois (Continuing)

LOCATION: The project is located in northeast Illinois on the southern shore of Lake Michigan within the City of Chicago in Cook County.

DESCRIPTION: The project consists of constructing shoreline protection structures along 9.2 miles of the shoreline in the Lincoln Park and Burnham Park areas. Other project features include: revetments near the Adler Planetarium and at Meigs Field; a breakwater to protect the South Water Purification Plant near 78th Street; and beach nourishment of two short reaches of shoreline near Fullerton Avenue and at 31st Street. All work is programmed..

AUTHORIZATION: Water Resources Development Act of 1996, and Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 3.2 to 1 at 7 3/4 percent.

TOTAL BENEFIT-COST RATIO: 3.7 to 1 at 7 3/4 percent.

INITIAL BENEFIT-COST RATIO: 5.5 to 1 at 7 3/4 percent (1997).

BASIS OF BENEFIT COST RATIO: Benefits are from the latest available evaluation approved in March 1998, at October 1997 price levels.

SUMMARIZED FINANCIAL DATA			STATUS: (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$174,000,000	Entire Project	67	To Be Determined
Estimated Non-Federal Cost		126,000,000	PHYSICAL DATA		
Cash Contributions	126,000,000				
Other Costs	0		Step Stone Revetment	44,208 feet	
			Breakwater Reconstruction	2,670 feet	
Total Estimated Project Cost		$300,000,000	Beach Replenishment	2,000 feet	

SUMMARIZED FINANCIAL DATA (Continued):		ACCUM PCT. OF EST FED COST
Allocations to 30 September 2003	$114,490,000	
Conference Allowance for FY 2004	24,500,000	
Allocation for FY 2004	18,933,000 1/	
Allocations through FY 2004	133,423,000	77
Allocation Requested for FY 2005	17,300,000	86
Programmed Balance to Complete After FY 2005	23,277,000	
Unprogrammed Balance to Complete after FY 2005	0	

1/ Reflects $5,422,000 reduction assigned as savings and slippage, and $145,000 rescinded in accordance with the Consolidated Appropriations Act, 2004.

JUSTIFICATION: The project area includes 9.2 miles of the 28 miles of publicly owned shoreline within the City of Chicago. The adjacent land mass and transportation network are protected by continuous revetments and seawalls, most of which were built in the early 1900's. Those constructed of wood pilings and stone cribs have begun to fail. As the land behind the structures is lost due to storms, the high capacity road network which runs parallel to the shoreline will be impacted. These roads carry an estimated 120,000 vehicles per day. Re-routing this traffic will cause serious disruption and significant traffic delay damages. In addition, facilities located on public property, with a capital investment of several billion dollars, will be destroyed. Over the past several years, significant degradation of the existing shore structures has occurred. Large sections of revetment have collapsed as a result of medium duration and intensity storm events. The rate of degradation is increasing, and short-term changes in sections are easily recognizable. The purification plant breakwater had collapsed to the point where gaps in the structure were visible. The breakwater protects the South Water Purification Plant, which services 2.5 million persons.

Average annual benefits are as follows:

Annual Benefits	Amount
Storm Damage Prevention	45,127,000
Recreation	26,082,000
Total	$ 71,209,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction of Montrose North	7,600,000
Complete Construction of Diversey to Fullerton	7,500,000
Continue Planning, Engineering and Design	800,000
Continue Construction Management	1,400,000
Total	$ 17,300,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts contained in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Pay 35 percent of the costs allocated to hurricane and storm damage reduction for the Federally supportable plan as reduced for credit allowed for non-Federal work under Section 215 of the Flood Control Act of 1968 and/or Section 206 of the Water Resources Development Act of 1992, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hurricane and storm damage reduction facilities	94,100,000	463,000
Pay all the incremental costs of the locally preferred plan over the Federally supportable plan as reduced for credit allowed for non-Federal work under Section 215 of the Flood Control Act of 1968 and/or Section 206 of the Water Resources Development Act of 1992.	31,900,000	
Total Non-Federal Costs	$126,000,000	$ 463,000

The non-Federal sponsor has agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The City of Chicago and the Chicago Park District are the local sponsors for the project. The reimbursement agreement for protection of the filtration plant (Reach 5) was executed on April 28, 1997. A Project Cooperation Agreement encompassing 31st Street to 33rd Street, 1,000 feet of protection at Belmont Avenue, and beach stabilization at 31st Street was executed in August 1998. The Project Cooperation Agreement for the remainder of the project was executed on May 17, 1999. The Chicago Park District currently owns all lands required for the project. The non-Federal cost estimate of $126,000,000 is the non-Federal cash contribution as noted in the PCA. The non-Federal sponsor is financially capable and willing to contribute the non-Federal share.

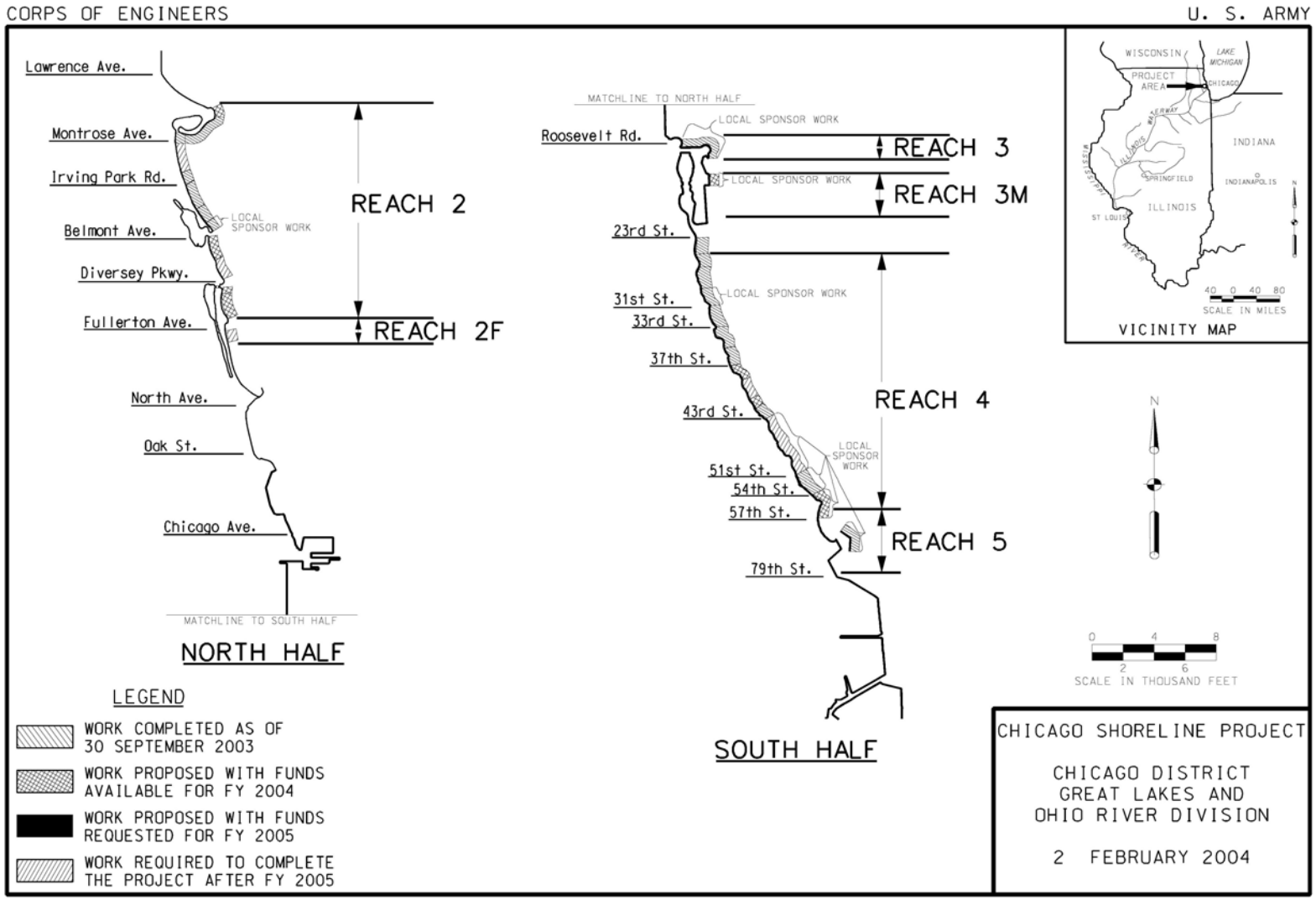
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $174,000,000 is the same as the latest estimate ($174,000,000) presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: One Environmental Assessment (EA) for entire project was signed on July 3, 1993, and another EA, for additional land at Reach 4, 51st to 54th Street was signed on June 25, 1999. A draft EA was completed for Belmont to Diversey in 2002.

OTHER INFORMATION: Funds to initiate PED were appropriated in FY 1992. Funds to initiate construction were appropriated in FY 1997. The project authorization provides for reimbursement for the Federal share of construction work performed by the non-Federal sponsor in Reach 5. WRDA 1999 authorized credit for work that was performed at Reach 3, Solidarity Drive, prior to execution of the Project Cooperation Agreement.

The Federally supportable plan includes rubblemound revetments in Lincoln Park and Burnham Park. The locally preferred plan substitutes steel sheet pile, and concrete step-stone revetments for the rubblemound revetments. The non-Federal sponsor will pay the incremental costs of the locally preferred plan.

The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


CORPS OF ENGINEERS
U. S. ARMY
Lawrence Ave.
Montrose Ave.
Irving Park Rd.
Belmont Ave.
Diversey Pkwy.
Fullerton Ave.
North Ave.
Oak St.
Chicago Ave.
MATCHLINE TO SOUTH HALF
LOCAL SPONSOR WORK
REACH 2
REACH 2F
NORTH HALF
MATCHLINE TO NORTH HALF
Roosevelt Rd.
LOCAL SPONSOR WORK
REACH 3
LOCAL SPONSOR WORK
REACH 3M
23rd St.
LOCAL SPONSOR WORK
31st St.
33rd St.
37th St.
REACH 4
43rd St.
LOCAL SPONSOR WORK
51st St.
54th St.
57th St.
REACH 5
79th St.
SOUTH HALF
WISCONSIN
LAKE MICHIGAN
PROJECT AREA
CHICAGO
WATERWAY
INDIANA
SPRINGFIELD
INDIANAPOLIS
ILLINOIS
ST LOUIS
MISSISSIPPI
ILLINOIS
OHIO
40 0 40 80
SCALE IN MILES
VICINITY MAP
N
0 4 8
2 6
SCALE IN THOUSAND FEET
LEGEND
WORK COMPLETED AS OF 30 SEPTEMBER 2003
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005
CHICAGO SHORELINE PROJECT
CHICAGO DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION
2 FEBRUARY 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: McCook and Thornton Reservoirs, Illinois (Continuing)

LOCATION: The project area covers 341 square miles of the combined sewer area in Cook County in Chicago and 48 adjacent suburban communities.

DESCRIPTION: The authorized project consists of constructing two reservoirs from stone quarries located in McCook and Thornton, Cook County, Illinois having floodwater storage capacities of 21,400 acre-feet (7 billion gallons) and 14,600 acre-feet (4.8 billion gallons), respectively. The Thornton Reservoir project authorization was modified to evaluate inclusion of the National Resource Conservation Service Thorn Creek Reservoir with the Thornton Reservoir project. The combined reservoir at Thornton, has a combined capacity of 24,200 acre-feet (7.8 billion gallons). McCook and Thornton both will serve as the termini of the Metropolitan Water Reclamation District of Greater Chicago's TARP project (Tunnel and Reservoir Plan) Phase I tunnels. The two reservoirs will capture and store combined sewer flows from the tunnel systems for later treatment after the storm event. Currently, when the tunnels reach their capacity, the combined flow of raw sewage and storm water backs up through the sewer system into basements of homes and businesses and on to the roadways and is discharged directly into area waterways. When large storm events occurred prior to TARP locks were opened to release the combined sewer flow into Lake Michigan - the source of drinking water for millions. The project reservoir features include pumps, a cutoff wall, main and distribution tunnels, gates and valves, hydraulic structures, wall stabilization and aquifer protection, aeration and wash-down systems. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1988, modified by the Water Resources Development Act of 1999.

REMAINING BENEFIT-REMAINING COST RATIO: 1.8 to 1 at 8 1/2 percent.

TOTAL BENEFIT-COST RATIO: 1.6 to 1 at 8 1/2 percent.

INITIAL BENEFIT-COST RATIO: 2.0 to 1 at 8 1/2 percent (FY 1994).

BASIS OF BENEFIT-COST RATIO: McCook Reservoir benefits are based on the latest available evaluation in the Final Special Reevaluation Report dated February 1999 at October 1997 price levels. Thornton Reservoir benefits are based on the economic evaluation completed for the Limited Reevaluation Report dated July 2003 at October 2001 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 600,000,000	McCook Reservoir	8	To Be Determined
Estimated Non-Federal Cost		201,000,000	Thornton Reservoir	0	To Be Determined
Cash Contributions	114,462,000		Entire Project	5	To Be Determined
Other Costs	86,538,000				
Total Estimated Project Cost		$ 801,000,000			

			ACCUM. PCT. OF EST. FED. COST	PHYSICAL DATA	
Allocations to 30 September 2003	$	57,114,000			
Conference Allowance for FY 2004		19,500,000		McCook Reservoir	
Allocation for FY 2004		15,070,000 1/		Storage Capacity	21,400 acre-feet
Allocations through FY 2004		72,184,000	12	Thornton Reservoir	
				Storage Capacity	24,200 acre-feet
Allocation Requested for FY 2005		25,300,000	16		
Programmed Balance to Complete after FY 2005		502,516,000			
Unprogrammed Balance to Complete after FY 2005		0			

1/ Reflects $4,315,000 reduction assigned as savings and slippage and $6,000 rescinded in accordance with the Consolidated Appropriations Act, 2004.

JUSTIFICATION: The McCook and Thornton Reservoirs Project covers 341 square miles of the combined sewer area in Chicago and suburban communities. Within this region, nearly 1,500,000 have a risk of water damage due to the inability of the sewage treatment plant to process the high flows of water that occur during large storms. The McCook Reservoir will provide an additional 7 times the storage capacity of the billion gallon capacity of its connecting tunnel system. The Thornton Reservoir will provide an additional 8 times the storage capacity of the half billion gallon capacity of its connecting tunnel system. The project will also improve water quality in area waterways, reduce untreated sewage backflow into Lake Michigan and reduce beach closures.

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Prevention	80,021,000
Water Quality	14,732,000
Water Supply	10,042,000
Recreation	1,030,000
Total	$ 105,825,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

McCook Reservoir	
Continue construction of tunnels	16,000,000
Complete construction of Pumps	5,000,000
Engineering and Design	2,500,000
Construction Management	1,800,000
Total	$ 25,300,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Maintenance, Repair, Rehabilitation, and Replacement Costs
McCook Reservoir:		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	6,083,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	25,105,000	
Pay 19 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	100,812,000	4,300,000
Total McCook Reservoir	$132,000,000	4,300,000
Thornton Reservoir:		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	26,617,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary, for the construction of the project, and less credits allowed for prior work per Section 501 of Water Resources Development Act of of 1999.	28,733,000	
Pay approximately 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	13,650,000	4,424,000
Total Thornton Reservoir	$ 69,000,000	$4,424,000
Total Non-Federal	$201,000,000	$8,724,000

STATUS OF LOCAL COOPERATION: The Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) is the local sponsor for the project. The Project Cooperation Agreement for McCook Reservoir was executed on 10 May 1999, and amended on 10 July 2003. Project Cooperation Agreement for Thornton Reservoir was executed on 18 September 2003. The non-Federal sponsor is expected to make all required payments concurrently with project construction. The current non-Federal cost estimate for the McCook Reservoir is $132,000,000, which includes a cash contribution of $100,812,000 and is an increase of $2,950,000 from the non-Federal cost estimate of $129,050,000 noted in the Project Cooperation Agreement, which included a cash contribution of $99,978,000. The current non-Federal cost estimate for the Thornton Reservoir is $69,000,000, which includes a cash contribution of $13,650,000 and is a decrease of $4,000,000 from the non-Federal cost estimate of $73,000,000 noted in the Project Cooperation Agreement, which included a cash contribution of $14,600,000.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $600,000,000 is a decrease of $47,000,000 from the latest estimate ($647,000,000) presented to Congress (FY 2004). This change includes the following items:

Item	Amount
Post Contract Award and Other Estimating Adjustments	-$35,000,000
Price Escalation on Construction Features	-$12,000,000
Total	-$47,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Public and Agency review of final Environmental Impact Statement and the Special Reevaluation Report (EIS/SRR) for the McCook Reservoir project was completed in December 1998 and the Record of Decision (ROD) was signed on May 5, 1999. The Thornton Reservoir Environmental Assessment and Finding of No Significant Impact were signed in June 2001 and December 2001 respectively. The Thornton Reservoir Limited Reevaluation Report was completed in July 2003.

OTHER INFORMATION: Funds to initiate PED were appropriated in FY 1988. Funds to initiate construction of McCook Reservoir were appropriated in FY 1994. The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.

SEPARABLE ELEMENT: McCook Reservoir, Illinois

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		$ 396,000,000
Non-Federal Cost		132,000,000
Cash Contributions	100,812,000	
Other Costs	31,188,000	
Total Estimated Project Cost		$ 528,000,000

REMAINING BENEFIT-REMAINING COST RATIO: 2.0 to 1 at 8 1/2 percent

TOTAL BENEFIT-COST RATIO: 1.7 to 1 at 8 1/2 percent

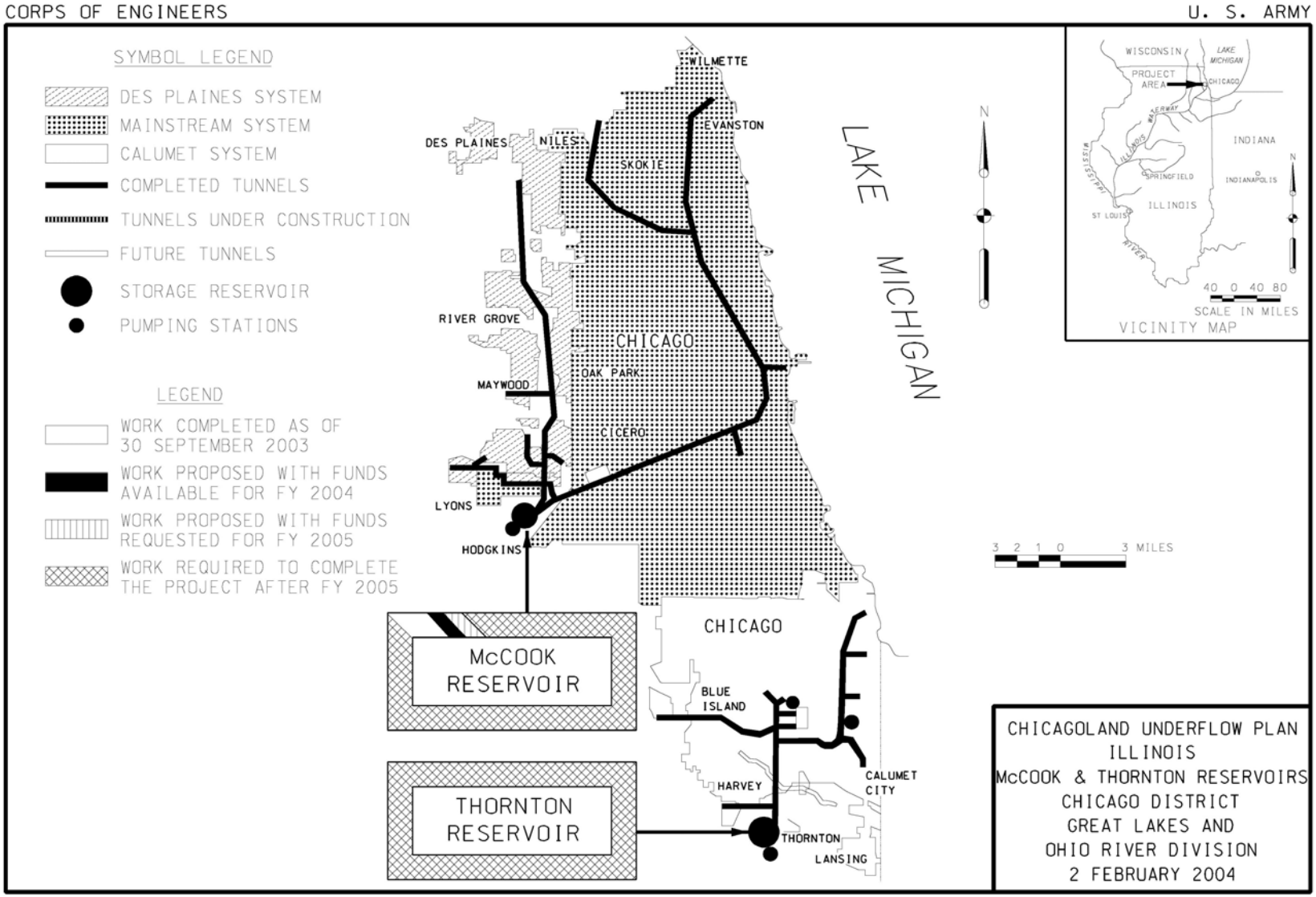
SEPARABLE ELEMENT: Thornton Reservoir, Illinois

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		$204,000,000
Non-Federal Cost		69,000,000
Cash Contributions	13,650,000	
Other Costs	55,350,000	
Total Estimated Project Cost		$273,000,000

REMAINING BENEFIT-REMAINING COST RATIO: 1.1 to 1 at 8 1/2 percent

TOTAL BENEFIT-COST RATIO: 1.1 to 1 at 8 1/2 percent.


CORPS OF ENGINEERS
U. S. ARMY
SYMBOL LEGEND
DES PLAINES SYSTEM
MAINSTREAM SYSTEM
CALUMET SYSTEM
COMPLETED TUNNELS
TUNNELS UNDER CONSTRUCTION
FUTURE TUNNELS
STORAGE RESERVOIR
PUMPING STATIONS
LEGEND
WORK COMPLETED AS OF 30 SEPTEMBER 2003
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005
WILMETTE
EVANSTON
DES PLAINES
NILES
SKOKIE
LAKE MICHIGAN
RIVER GROVE
CHICAGO
OAK PARK
MAYWOOD
CICERO
LYONS
HODGKINS
McCOOK RESERVOIR
THORNTON RESERVOIR
CHICAGO
BLUE ISLAND
HARVEY
CALUMET CITY
THORNTON
LANSING
N
3 2 1 0 3 MILES
WISCONSIN
LAKE MICHIGAN
PROJECT AREA
CHICAGO
INDIANA
SPRINGFIELD
INDIANAPOLIS
ILLINOIS
ST LOUIS
40 0 40 80
SCALE IN MILES
VICINITY MAP
CHICAGOLAND UNDERFLOW PLAN
ILLINOIS
McCOOK & THORNTON RESERVOIRS
CHICAGO DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION
2 FEBRUARY 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Indianapolis, White River (North), Indiana (Continuing)

LOCATION: The project encompasses approximately 3.0 miles of the White River in the City of Indianapolis, Indiana.

DESCRIPTION: The recommended plan consists of a combination of floodwall and levee flood protection along approximately 3.0 miles of the east bank of the White River in Indianapolis. The project will be constructed in three phases. The first phase consists of the rehabilitation of an existing pump station and the development of a flood warning plan and system. The second phase will consist of 2 mitigation sites totaling 37 acres of reforestation and mitigation. The third phase will consist of the construction of 19,150 feet of sheetpile floodwall with concrete facing and 1,220 feet of earthen levee. This phase will be constructed in sections as three individual contracts. All work is programmed..

AUTHORIZATION: Flood Control Act of 1936 as amended by the Flood Control Act of 1938, and subject to cost sharing provisions of the Water Resources Development Act of 1986.

REMAINING BENEFIT-COST RATIO: 7.2 to 1 at 7 1/8 percent

TOTAL BENEFIT-COST RATIO: 2.3 to 1 at 7 1/8 percent

INITIAL BENEFIT-COST RATIO: 2.42 to 1 at 7 1/8 percent

BASIS OF BENEFIT-COST RATIO: A Benefit Evaluation conducted in May 1997 at October 1995 price levels.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$ 14,250,000
Estimated Non-Federal Cost		4,750,000
Cash Contribution	3,489,000	
Other Costs	1,261,000	
Total Estimated Project Cost		$ 19,000,000

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Phase I	95	27 Feb 2004
Phase II	35	To Be Determined
Phase III-A	90	30 Jun 2004
Phase III-B	5	To Be Determined
Phase III-C	10	To Be Determined
Entire Project	35	

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM. PCT OF EST. FED. COST
Allocations to 30 September 2003	$ 6,063,000	
Conference Allowance for FY 2004	2,600,000	
Allocation for FY 2004	1,470,000 1/	
Allocations through FY 2004	7,533,000	53
Allocation Requested for FY 2005	819,000	59
Programmed Balance to Complete after FY 2005	5,898,000	
Unprogrammed Balance to Complete after FY 2005	$ 0	

PHYSICAL DATA

Pump Station Rehab (Phase I)	1	Floodwall (Phase III-A)	7,600 ft
Flood Warning System (Phase I)	1	Levees (Phase Ill-A)	530 ft.
Mitigation Sites (Phase Il)	2	Floodwall (Phase III-B)	6,650 ft.
Floodwall (Phase III-C)	4,900 ft.	Levees (Phase III-B)	690 ft.

1/ Reflects $576,000 reduction assigned as savings and slippage, $15,000 rescinded in accordance with the Consolidated Appropriations Act, 2004, and $539,000 reprogrammed from the project.

JUSTIFICATION: Urban expansion in Hamilton County to the north and Hancock County to the east is impacting hydrologic characteristics of the urbanized watersheds in Marion County. The flooding of January 1991 forced evacuation of 500 to 600 homes and damaged many more. Roadways were flooded causing severe damage and loss of access; and several serious injuries were reported. Based on current flood damage survey data, a 100-year annual flood event would cause damages of $57,930,000 (1995 price levels) in the Warfleigh area. The recommended plan reduces average annual flood damages by 90 percent in the Warfleigh area and provides a 286-year level of protection.

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	$ 2,898,000
Flood Insurance	49,000
Total	$ 2,947,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Environmental Mitigation Contract	$300,000
Planning, Engineering, and Design	$394,000
Project Management	125,000
Total	$ 819,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Const/Reimb	Annual OMRR&R Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 1,225,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	36,000	
Pay approximately 18 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation, maintenance, repair, replacement, and rehabilitation of flood control facilities.	3,489,000	$ 21,000
Total Non-Federal Costs	$ 4,750,000	$ 21,000

The non-Federal sponsor will be required to make all payments concurrently with project construction.

Floodplain Management Requirement.

A flood warning preparedness plan will provide significant benefit to the project area and will continue to be developed in close cooperation with City officials. In addition, the sponsor will be required to participate in and comply with applicable Federal Floodplain Management and Flood Insurance Programs in accordance with Section 402 of Public Law 99-662 as amended by Section 202(c) of Public Law 104-303. Finally, the sponsor will be required to publicize floodplain

information in the area concerned and provide this information to zoning and other regulatory agencies for their use in preventing unwise future development in the flood plain and in adopting such regulations as may be necessary to prevent unwise future development and to ensure compatibility with protection levels provided by the project. The sponsor has an active flood plain management plan in place through the Indiana Department of Natural Resources.
STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the City of Indianapolis, Indiana. The sponsor has provided all necessary local assurances for this stage of project development. The City of Indianapolis is a legally constituted public body with the full power, authority, and capability to perform the terms of the Project Cooperation Agreement (PCA). The terms of the PCA have been discussed with the sponsor and they understand their responsibilities. The PCA was executed in December 2000. The City of Indianapolis will fund its share of project costs through revenue generated from the flood district tax which is part of the property tax mechanism for the entire county.

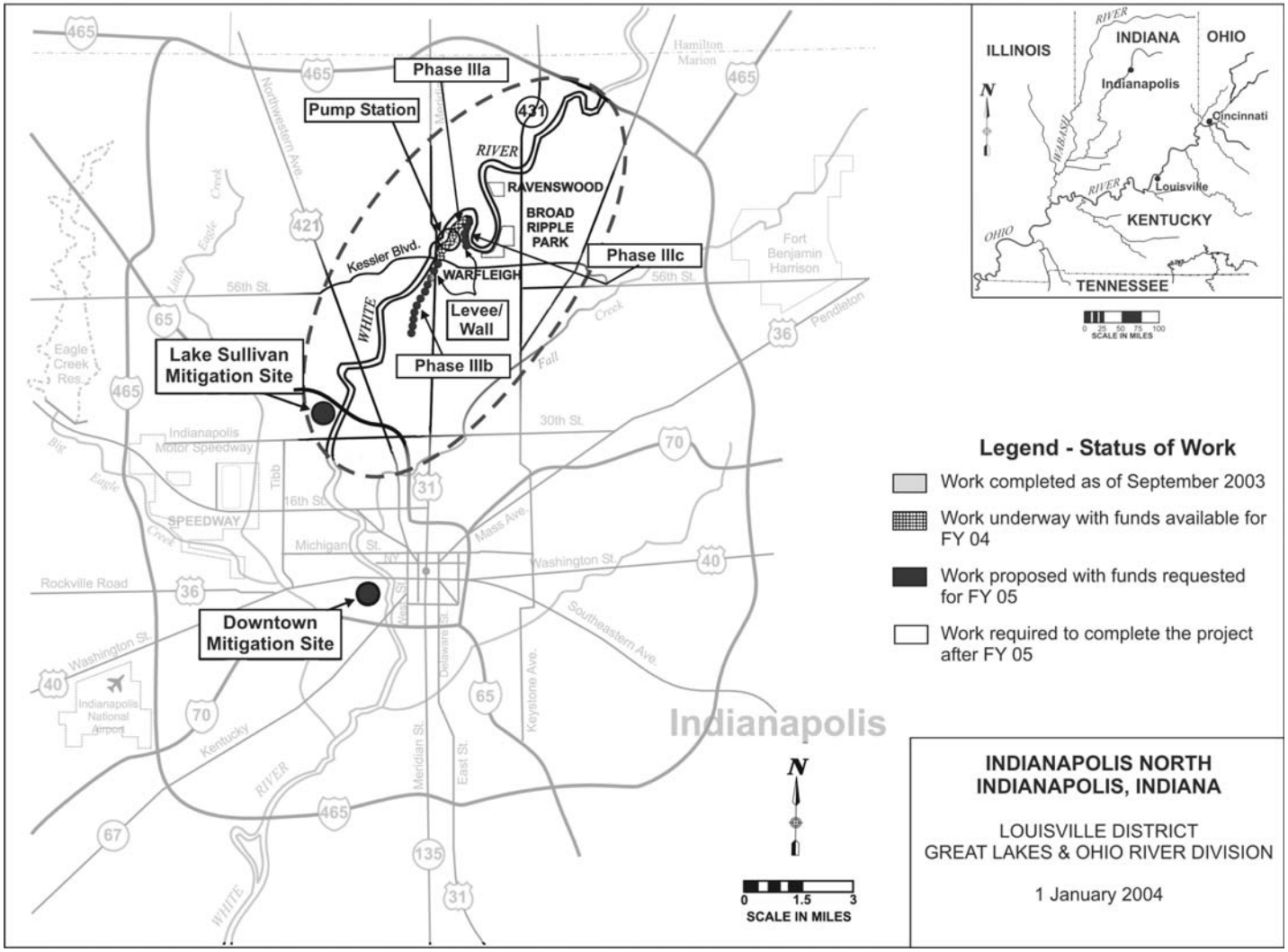
The current non-Federal cost estimate of $4,750,000, which includes a cash contribution of $3,489,000 is an increase of $475,000 from the non-Federal cost estimate of $4,275,000 noted in the Project Cooperation Agreement, which included a cash contribution of $3,014,000. In a letter dated 12 July 2000, the non-Federal sponsor indicated that it is financially capable and willing to contribute the increased non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The Federal Cost estimate of $14,250,000 is an increase of $1,125,000 from the latest estimate ($13,125,000) presented to Congress (FY2004). The change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 118,000
Design Changes	1,007,000
Total	$1,125,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A draft Environmental Impact Statement was circulated in May 1996 to all concerned agencies and the public for review. A final EIS was completed in September 1996 incorporating agency and public comments.

OTHER INFORMATION: Funds to initiate Preconstruction Engineering and Design were received in FY 1996. Initial construction funds were received in FY 2000. Fish & Wildlife mitigation cost is $486,000. The scheduled completion date is the same as the latest presented to Congress (FY 2004), "To Be Determined".


Phase IIIa
Pump Station
Phase IIIc
Phase IIIb
Levee/ Wall
Lake Sullivan Mitigation Site
Downtown Mitigation Site
RAVENSWOOD
BROAD RIPPLE PARK
WARFLEIGH
Kessler Blvd.
WHITE RIVER
Indianapolis
SCALE IN MILES
ILLINOIS
INDIANA
OHIO
KENTUCKY
TENNESSEE
Louisville
Cincinnati
Indianapolis
Legend - Status of Work
Work completed as of September 2003
Work underway with funds available for FY 04
Work proposed with funds requested for FY 05
Work required to complete the project after FY 05
INDIANAPOLIS NORTH
INDIANAPOLIS, INDIANA
LOUISVILLE DISTRICT
GREAT LAKES & OHIO RIVER DIVISION
1 January 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Little Calumet River, Indiana (Continuing)

LOCATION: The Little Calumet River Basin, Northwest Indiana, Lake County.

DESCRIPTION: The project consists of replacing 9.5 miles of existing spoil bank levees with 12.1 miles of new levees, floodwalls, and closure and appurtenant structures between the Illinois-Indiana State line and Cline Avenue in Gary, Indiana; constructing 9.7 miles of set-back levees and appurtenant drainage structures; installing a flow control structure at Hart Ditch; permanent evacuation of 37 structures in the Black Oak area of Gary, Indiana; construct a betterment levee from Cline to Clark; modifying 7 miles of channel with 3 accompanying bridge culvert modifications; modifying 1 highway bridge; constructing 16.8 miles of hiking/biking trails and accompanying recreation support facilities, and preserving 788 acres of wildlife habitat. A Post Authorization Change Report was approved in May 1999 extending the eastern limit of the project to include the Marshalltown area. All work is programmed..

AUTHORIZATION: Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: 1.6 to 1 at 8 5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 8 5/8 percent.

INITIAL BENEFIT-COST RATIO: 2.1 to 1 at 8 5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in October 1994 at 1993 price levels. A Post Authorization Change Report was approved in May 1999.

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$150,000,000	Entire Project	58	To Be Determined
Estimated Non-Federal Cost		50,000,000			
Cash Contributions	15,170,000				
Other Costs	34,830,000				
Total Estimated Project Cost		$200,000,000			

PHYSICAL DATA	
Levees and Floodwalls	21.8 miles
Pumping Plant Modifications	17
Structures Removed	37
Structures Floodproofed	53
Channel Modification	7 miles
Hiking Trails	6.8 miles

		ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	$88,092,000	
Conference Allowance for FY 2004	4,000,000	
Allocation for FY 2004	3,090,000 1/	
Allocations through FY 2004	91,182,000	61
Allocation Requested for FY 2005	5,000,000	64
Programmed Balance to Complete After FY 2005	53,818,000	
Unprogrammed Balance to Complete after FY 2005	0	

1/ Reflects $886,000 reduction assigned as savings and slippage and $24,000 rescinded in accordance with the Consolidated Appropriations Act, 2004.

JUSTIFICATION: Overbank flood damages occur to 8,600 structures, primarily residential, along the Little Calumet River in Indiana within the communities of Hammond, Munster, Griffith and Gary. The total value of these structures is in excess of $775 million. Flood damages also occur to commercial and public buildings, golf courses and the transportation network. The major highway transportation link between the Chicago metropolitan area and the eastern United States, Interstate 80/94, is susceptible to closure beginning at a 40-to 50-year flood event. Average annual benefits (October 1993 price levels) are estimated at

JUSTIFICATION: (continued)
$18,607,000. The project will provide essentially a 200-year level of flood protection. An estimated $35 million in flood damages were incurred and one life lost in the November 1990 flood, the most recent significant flood event. The communities of Hammond, Highland and Munster, IN were inundated. The President declared the area inundated by the November 1990 flood a National Disaster Area on December 6, 1990. The State of Indiana continues to rate the flood damage potential along the Little Calumet River as the most severe in the state. The project avoids the short-and long-term adverse impacts associated with the destruction or modification of wetlands by designating the existing wetland areas in the Gary reach for overbank flood storage, a vital requirement of the hydraulic operation and design of the project, and hence required project lands. Environmental attributes are being mitigated for, as well as enhanced along the river corridor. Lake County, Indiana qualifies as an area of persistent and chronic unemployment. A minority plan has been developed that identifies construction contracts which can be set aside for small business contractors and minority owned/Section 8A contractors who exist in the project area. A 40 percent minority participation goal has been established for all future construction contracts for the Contractor's aggregate workforce in each trade. The project will create 424 man-years of labor during the construction period. All work is programmed..

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Prevention	15,917,000
Recreation	468,000
Land Enhancement	2,222,000
Total	18,607,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue construction of Stage VI-1	3,350,000
Continue construction of Burr Street	1,000,000
Engineering and Design	400,000
Construction Management	250,000
Total	$5,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing requirements contained in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	17,116,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project, reduced for credit allowed based on prior work (Section 104 of the Water Resource Development Act of 1986; $1,667,200) after reductions for such credit have been made in the required cash payments.	17,714,000	
Pay one-half separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities;	2,512,000	
Pay approximately 5 percent of the costs allocated to flood control (other than non-structural measures) to bring the non-Federal share of flood control costs to 25 percent as determined under Section 103 (m) of the Water Resource Development Act of 1986, as amended; to reflect credit allowed for prior work (Section 104 of the Water Resource Development Act of 1986; $1,667,200); and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	10,491,000	150,000
Pay 25 percent of the first cost allocated to non-structural flood control measures.	1,913,000	
Pay 25 percent of the costs allocated to fish and wildlife enhancement, and pay 25 percent of the costs of operation, maintenance, repair, rehabilitation and replacement of the fish and wildlife facilities.	254,000	
Total Non-Federal Costs	$50,000,000	$ 150,000

STATUS OF LOCAL COOPERATION: The Little Calumet River Basin Development Commission is the local sponsor for the project. The Local Cooperation Agreement (LCA) was executed on August 16, 1990. The LCA was supplemented twice to include the East Reach Remediation, 30 July 1999 and Burr Street Betterment, 26 April 2000. The current non-Federal cost estimate of $50,000,000, which includes a cash contribution of $15,170,000, is an increase of $26,400,000 from the non-Federal cost estimate of $23,600,000 noted in the Local Cooperation Agreement, which included a cash contribution of $4,800,000. The non-Federal sponsor is financially capable and willing to contribute the non-Federal share. The local sponsor has received approval for Section 104 credits in the amount of $1,667,200.

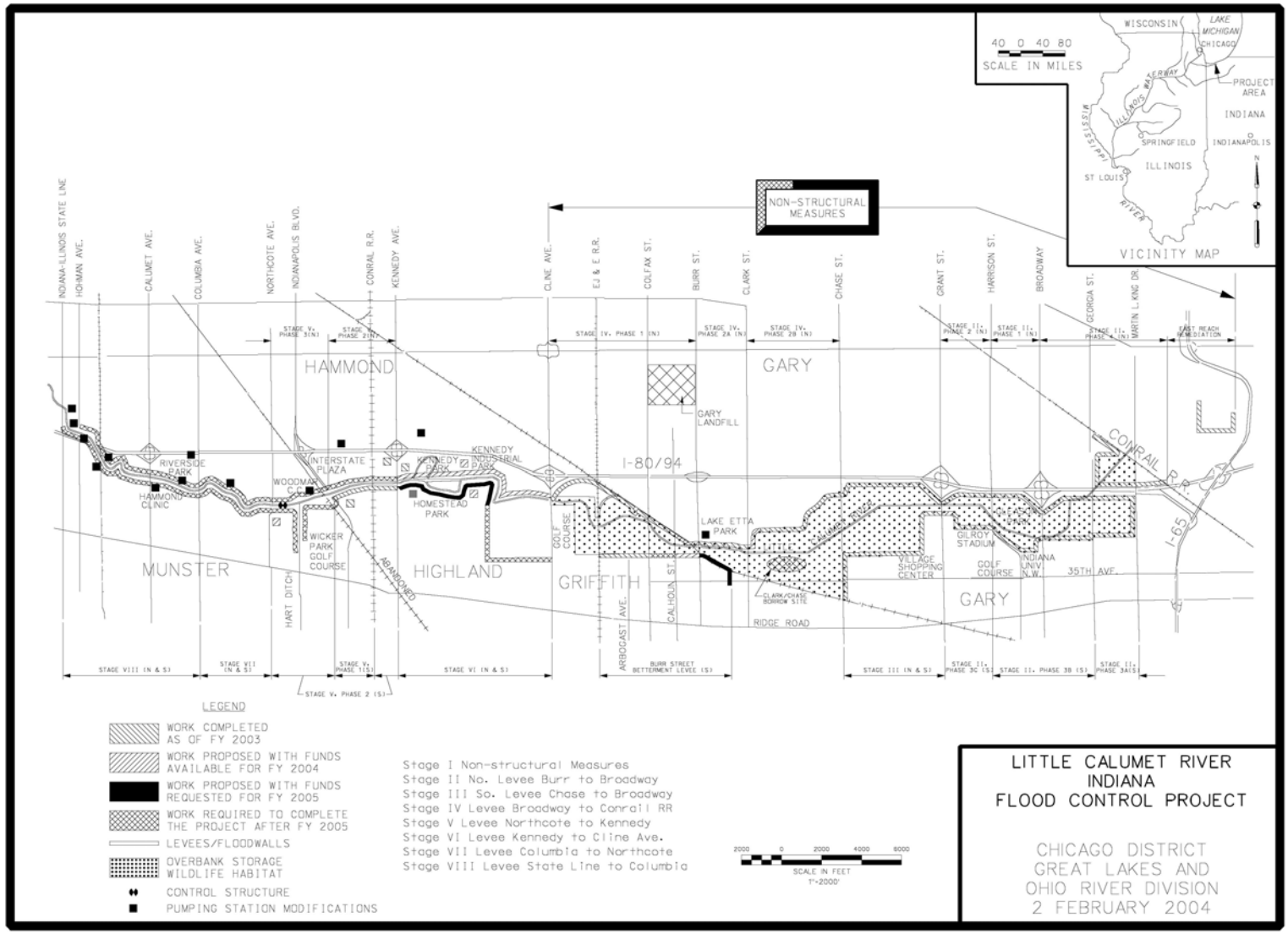
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $150,000,000 is an increase of $5,000,000 from the latest estimate ($145,000,000) presented to Congress (FY 2004). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$2,000,000
Post Contract Award and Other Estimating Adjustments	$3,000,000
Total	$5,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the United States Environmental Protection Agency on February 3, 1984. The Record of Decision was signed on July 13, 1990. Environmental Assessments (EA) were subsequently prepared addressing potential borrow and disposal sites which were not covered in the EIS and the three Findings of No Significant Impact were signed by the District Engineer on May 9, 1990, July 11,1991 and April 21, 1992. A supplemental Environmental Impact Statement was completed for the levee re-alignment, excavated ponding areas and new borrow sites. The Record of Decision was signed on June 23, 1995.

OTHER INFORMATION: Funds to initiate PED were appropriated in FY 1984 and funds to initiate construction were appropriated in FY 1990. Fish and wildlife mitigation and enhancement costs for this project are estimated at $4,611,000. A 902 PAC report was approved by HQUSACE on 5 December 2000.

The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


NON-STRUCTURAL MEASURES
VICINITY MAP
WISCONSIN
LAKE MICHIGAN
CHICAGO
PROJECT AREA
INDIANA
SPRINGFIELD
INDIANAPOLIS
ILLINOIS
ST LOUIS
40 0 40 80
SCALE IN MILES
INDIANA-ILLINOIS STATE LINE
HOHMAN AVE.
CALUMET AVE.
COLUMBIA AVE.
NORTHCOTE AVE.
INDIANAPOLIS BLVD.
CONRAIL R.R.
KENNEDY AVE.
CLINE AVE.
E.J. & E. R.R.
COLFAX ST.
BURR ST.
CLARK ST.
CHASE ST.
GRANT ST.
HARRISON ST.
BROADWAY
GEORGIA ST.
MARTIN L. KING DR.
HAMMOND
GARY
GARY LANDFILL
I-80/94
CONRAIL R.R.
I-65
RIVERSIDE PARK
HAMMOND CLINIC
INTERSTATE PLAZA
WOODMAR C.C.
KENNEDY PARK
KENNEDY INDUSTRIAL PARK
HOMESTEAD PARK
LAKE ETTA PARK
GILROY STADIUM
VILLAGE SHOPPING CENTER
GOLF COURSE
INDIANA UNIV. N.W.
35TH AVE.
WICKER PARK GOLF COURSE
ABANDONED
HART DITCH
CALHOUN ST.
ARBOGAST AVE.
CLARK/CHASE BORROW SITE
RIDGE ROAD
MUNSTER
HIGHLAND
GRIFFITH
GARY
STAGE VIII (N & S)
STAGE VII (N & S)
STAGE V, PHASE 1 (S)
STAGE V, PHASE 2 (S)
STAGE VI (N & S)
BURR STREET BETTERMENT LEVEE (S)
STAGE III (N & S)
STAGE II, PHASE 3C (S)
STAGE II, PHASE 3B (S)
STAGE II, PHASE 3A (S)
LEGEND
WORK COMPLETED AS OF FY 2003
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2005
LEVEES/FLOODWALLS
OVERBANK STORAGE WILDLIFE HABITAT
CONTROL STRUCTURE
PUMPING STATION MODIFICATIONS
Stage I Non-structural Measures
Stage II No. Levee Burr to Broadway
Stage III So. Levee Chase to Broadway
Stage IV Levee Broadway to Conrail RR
Stage V Levee Northcote to Kennedy
Stage VI Levee Kennedy to Cline Ave.
Stage VII Levee Columbia to Northcote
Stage VIII Levee State Line to Columbia
2000 0 2000 4000 8000
SCALE IN FEET
1"=2000'
LITTLE CALUMET RIVER
INDIANA
FLOOD CONTROL PROJECT
CHICAGO DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION
2 FEBRUARY 2004

APPROPRIATION TITLE: Construction, General (Flood Control)

PROJECT: Ohio River Greenway Public Access, Indiana (Continuing)

LOCATION: The Ohio River Greenway is a seven-mile linear corridor that extends from the City of Jeffersonville through the Town of Clarksville to the City of New Albany, Indiana, along the Ohio River Shoreline. The project extends from Ohio River Mile 602 to Ohio River Mile 609. The corridor adjoins the McAlpine Locks and Dam project and the Falls of the Ohio National Wildlife Conservation Area on the Indiana side of the river.

DESCRIPTION: Federal participation in discrete recreation facilities is authorized, but these facilities will not be implemented as part of the project. The main project features consist of a vehicular parkway, pedestrian and multi-use paths, a bridge, and two levee cuts for additional access to the river. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1996.

REMAINING BENEFIT-COST RATIO: 2.1 to 1 at 6 7/8 percent

TOTAL BENEFIT-COST RATIO: 1.9 to 1 at 6 7/8 percent

INITIAL BENEFIT-COST RATIO: 2.0 to 1 at 6 7/8 percent

BASIS OF BENEFIT-COST RATIO: Economic Analysis, Report on the Ohio River Greenway Corridor, dated January 2000 at 1 Oct 1999 price levels.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$ 20,850,000
Estimated Non-Federal Cost		20,850,000
Cash Contribution	14,338,000	
Other Costs	6,512,000	
Total Estimated Project Cost		$ 41,700,000

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	9	To Be Determined

PHYSICAL DATA

Levee Cuts	85 ft.
Roadway	7 mi.
Trails/Paths	9 mi.
Gates	2
Bridge	1

SUMMARIZED FINANCIAL DATA (Continued)			ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2003	$ 1,212,000		
Conference Allowance for FY 2004	1,000,000		
Allocation for FY 2004	773,000		10
Allocations through FY 2004	1,985,000	1/	
Allocation Requested for FY 2005	1,600,000		27
Programmed Balance to Complete after FY 2005	17,265,000		
Unprogrammed Balance to Complete after FY 2005	$ 0		

1/ Reflects $221,000 reduction assigned as savings and slippage and $6,000 rescinded in accordance with the Consolidated Appropriations Act, 2004.

JUSTIFICATION: The primary purpose of this project is to enhance public access to the amenities of the Ohio River in the vicinity of the local flood protection project. After the 1937 flood, which caused considerable damage to the southern Indiana communities of Jeffersonville, Clarksville, and New Albany, the Federal Government participated in the construction of a flood damage reduction project to protect these communities from future flooding. The existing local protection project, which consists of approximately eight miles of earth levee, 2.5 miles of concrete wall, and 16 pumping plants, is operated and maintained by these three communities. The series of earth levees and concrete floodwalls was constructed between 1937 and 1953 and protects approximately 80,000 residents and physically separates them from the river. The local flood protection project continues to serve its function, however, it separates or cuts off the communities from the riverfront and provides them with limited access for operation and maintenance of the facilities. If constructed today, the project would provide the local communities opportunities to more efficiently operate and maintain the existing flood control facilities and provide better access to the amenities of the Ohio River.

Average annual benefits are as follows:	Annual Benefits	Amount
	Access	$ 6,958,000
	Total	$ 6,958,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Jeffersonville Construction Contract	$ 300,000
Continue New Albany Construction Contract	300,000
Engineering & Design	850,000
Construction Management	80,000
Project Management	70,000
Total	$ 1,600,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financial concepts reflected in Water Resources Development Act 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation Maintenance, Repair Rehabilitation and Replacement Costs
Provide lands, easements, rights of way, relocations, and dredged material disposal areas.	$ 6,512,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 32.3 percent of the costs allocated to access facilities, as reduced for credit to allow for non-Federal work, to bring the total non-Federal share of costs to 50 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of access facilities.	14,338,000	$ 809,000
Total Non-Federal Costs	$ 20,850,000	$ 809,000

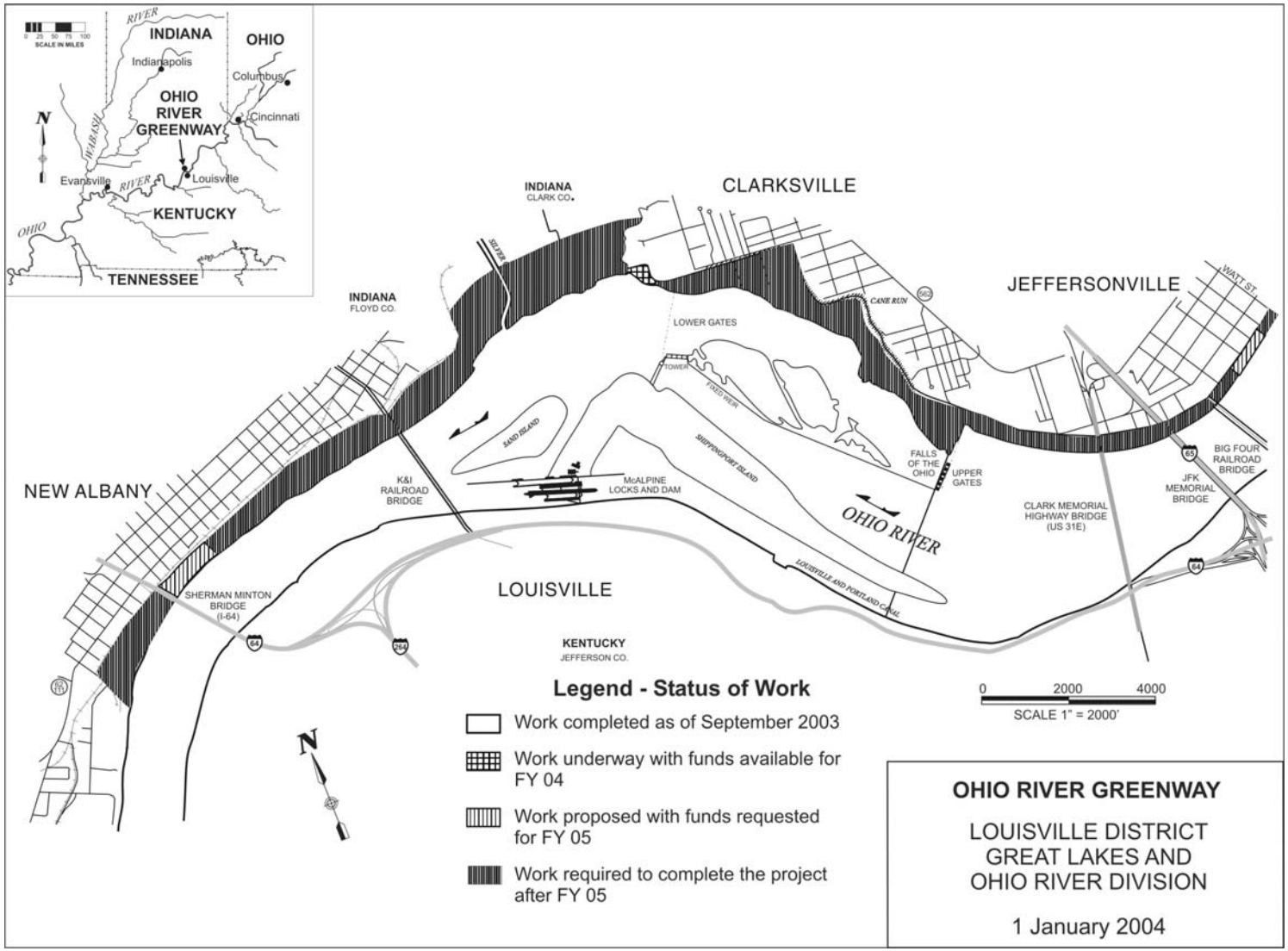
STATUS OF LOCAL COOPERATION: There are four non-Federal sponsors: The Ohio River Greenway Development Commission, the City of New Albany, the Town of Clarksville, and the City of Jeffersonville. Each has sent in Letters of Intent, dated 17 December 1999, indicating their willingness to enter into binding agreements with the Federal Government to fulfill the required items of local cooperation. The Project Cooperation Agreement was execution in FY 2003. The local sponsors have spent about $1 million on the access road to this point, using mainly local funds. The Greenway Commission and local communities have recently obtained over $3 million in grant funds that will be used for the project. The sponsors' source of funding will mainly come from state and local sources. The current non-Federal cost estimate of $20,850,000, with a cash contribution of $14,338,000 is the same as in the executed PCA.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $20,850,000 is the same as presented to Congress in FY 2004.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: No Environmental Impact Statement is required. An Environmental Assessment and Finding of No Significant Impact (FONSI) was completed in January 2000. Additional environmental work was completed and a supplement to the original FONSI was signed in November 2002.

OTHER INFORMATION: The Ohio River Greenway Project was approved for construction by the ASA (CW) in April 2000. Funds to initiate preconstruction, engineering and design were first appropriated in FY 1993 and funds to initiate construction were first appropriated in FY 2001.

The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


INDIANA
OHIO
Indianapolis
Columbus
OHIO RIVER GREENWAY
Cincinnati
Evansville
Louisville
KENTUCKY
TENNESSEE
CLARKSVILLE
INDIANA
CLARK CO.
INDIANA
FLOYD CO.
JEFFERSONVILLE
LOWER GATES
CANE RUN
WATT ST
NEW ALBANY
K&I RAILROAD BRIDGE
McALPINE LOCKS AND DAM
SAND ISLAND
SHIPPINGPORT ISLAND
FALLS OF THE OHIO
UPPER GATES
BIG FOUR RAILROAD BRIDGE
JFK MEMORIAL BRIDGE
CLARK MEMORIAL HIGHWAY BRIDGE (US 31E)
OHIO RIVER
SHERMAN MINTON BRIDGE (I-64)
LOUISVILLE
LOUISVILLE AND PORTLAND CANAL
KENTUCKY
JEFFERSON CO.
Legend - Status of Work
Work completed as of September 2003
Work underway with funds available for FY 04
Work proposed with funds requested for FY 05
Work required to complete the project after FY 05
0 2000 4000
SCALE 1" = 2000'
OHIO RIVER GREENWAY
LOUISVILLE DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION
1 January 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Metropolitan Louisville, Beargrass Creek, KY (Continuing)

LOCATION: The project is located in eastern Jefferson County in the suburbs of Louisville, Kentucky, along the South Fork Beargrass Creek and Buechel Branch.

DESCRIPTION: The project consists of construction of eight detention basins, about 2,000 linear feet of channel improvement, and 1,400 linear feet of floodwall/levee on the South Fork of Beargrass Creek and Buechel Branch. The project will provide protection to 830 structures (combination of residential and commercial). Of those structures, 314 will be removed from the 100-year flood plain. The 100-year flood will be reduced an average of 1.5 feet, as a result of project implementation. All work is programmed.

AUTHORIZATION: The Water Resource Development Act of 1999.

REMAINING BENEFIT-COST RATIO: 9.1 to 1 at 6 7/8 percent.

TOTAL BENEFIT-COST RATIO: 2.8 to 1 at 6 7/8 percent.

INITIAL BENEFIT-COST RATIO: 2.7 to 1 at 6 7/8 percent (FY 2001)

BASIS OF BENEFIT-COST RATIO: Benefits are from the Final Feasibility Report dated September 1997 at October 1996 price levels.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$ 8,513,000
Estimated Non-Federal Cost		4,584,000
Cash Contribution	1,505,000	
Other Costs	3,079,000	
Total Estimated Project Cost		$13,097,000

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	35	Sep 2005

PHYSICAL DATA

Floodwall/Levee	1,400 feet
Channel Improvement	2,000 feet
Detention Basins	8

SUMMARIZED FINANCIAL DATA (Continued)

			ACCUM. PCT OF EST. FED. COST
Allocations to 30 September 2003	$ 3,344,000		
Conference Allowance for FY 2004	1,400,000		
Allocation for FY 2004	1,894,000	1/	
Allocations through FY 2004	5,238,000		62
Allocation Requested for FY 2005	3,275,000		100
Programmed Balance to Complete after FY 2005	0		
Unprogrammed Balance to Complete after FY 2005	$ 0		

1/ Reflects $310,000 reduction assigned as savings and slippage, $8,000 rescinded in accordance with the Consolidated Appropriations Act, 2004, and $812,000 reprogrammed to the project.

JUSTIFICATION: Approximately 26 percent of Jefferson County's population resides in the Beargrass Creek Basin. In recent years, the great majority of the 60 square mile basin has been developed. The value of development in the study area is estimated at $500,000,000. Stream reaches of the South Fork of Beargrass Creek and Buechel Branch are subject to inundation as a result of insufficient in-bank flowage areas and increased runoff from upstream development. Upstream industrial, commercial, and residential development has contributed to increased storm runoff and flooding on South Fork Beargrass Creek and Buechel Branch. Major floods occurred in the basin in 1960, 1964, 1970, 1973, and 1997. Based on October 1995 prices and conditions, a 100-year frequency flood in the basin would result in approximately $55 million in damages to 929 structures. The March 1997 flood inflicted an estimated $8 million in damages within the basin. The average annual benefits amount to $2,368,000, all for flood damage reduction.

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	$ 2,368,000
Total	$ 2,368,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Complete Phase III contract	$ 1,710,000
Complete Phase II contract	1,205,000
Engineering and Design	150,000
Construction Management	210,000
Total	$ 3,275,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments during Construction and Reimbursements	Annual Operation Maintenance, Repair Rehabilitation and Replacement Costs
Provide lands, easements, rights of way, and dredged material	$ 2,936,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	143,000	
Pay 11.5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 35 percent and bear all costs of operation, maintenance, repair, and rehabilitation.	1,505,000	$ 24,000
Total Non-Federal Costs	$ 4,584,000	$ 24,000

The non-Federal sponsor has agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The non-Federal cost sharing partner is the Louisville and Jefferson County Metropolitan Sewer District (MSD). MSD cost shared the feasibility phase of the project. A PED phase cost sharing agreement with MSD was executed in January 1998. The Chief of Engineers report approved the project in May 1998. A Project Cooperation Agreement (PCA) with MSD was executed in September 2001.

The current non-Federal cost estimate of $4,584,000, which includes a cash contribution of $1,505,000, is an increase of $302,000 from the non-Federal cost estimate of $4,282,000 noted in the PCA, which included a cash contribution of $1,182,000. This increase is due to price escalation of the project's construction and land features. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

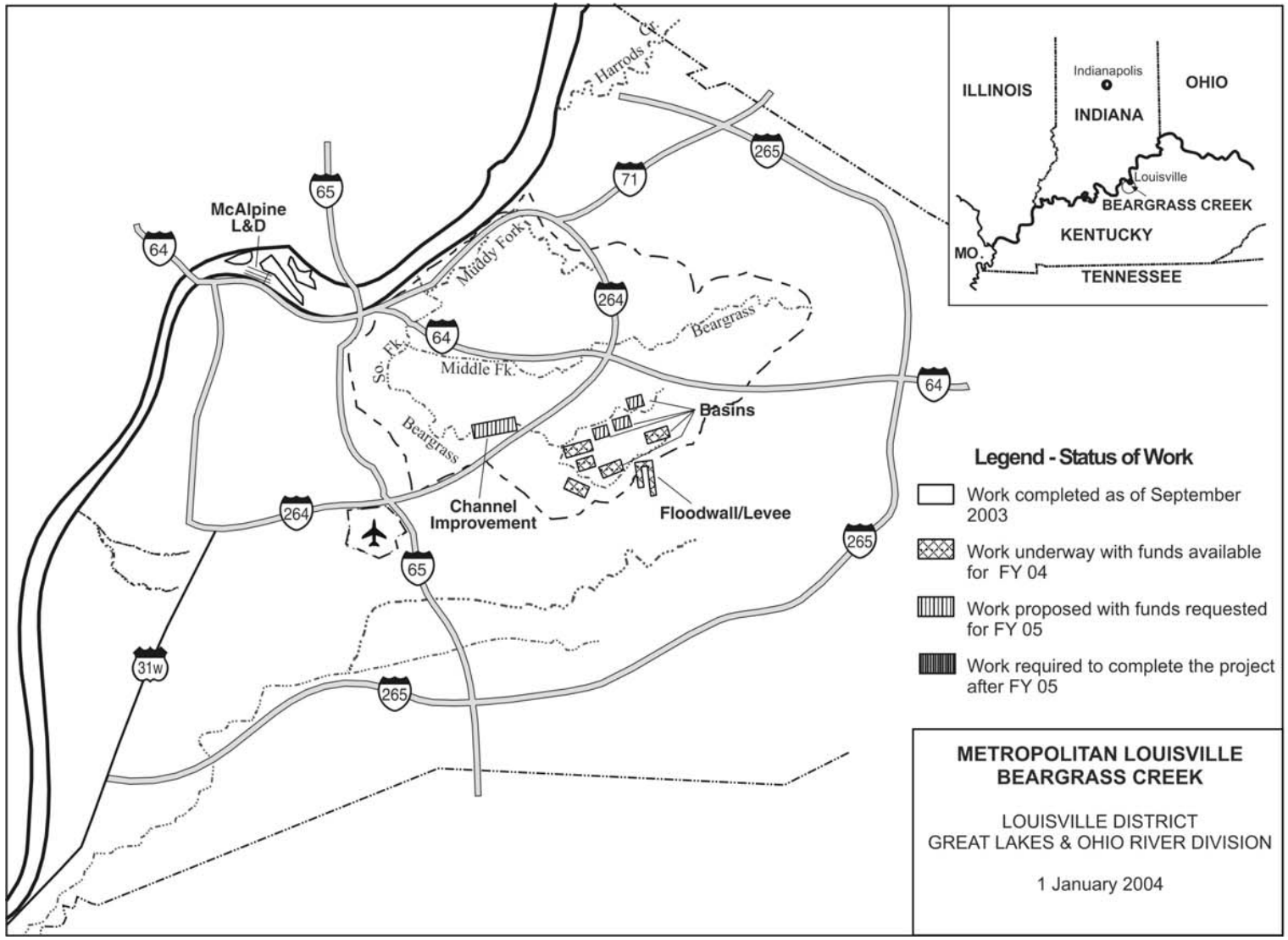
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $8,513,000 is an increase of $493,000 in the last estimate ($8,020,000) presented to Congress (FY2004). The change includes the following items:

Item	Amount
Price Escalation on Construction Features	$493,000
Total	$493,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment was prepared and circulated for review. A Finding Of No Significant Impact was signed in September 1997.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1997. Funds to initiate construction were appropriated in FY 2001. The first construction contract for the project was awarded in August 2002.

The scheduled completion date has changed form last presented to Congress (FY 2004), "To Be Determined" to September 2005.


McAlpine
L&D
Harrods Cr.
Muddy Fork
So. Fk.
Middle Fk.
Beargrass
Beargrass
Basins
Channel
Improvement
Floodwall/Levee
65
64
71
265
264
31w
Indianapolis
ILLINOIS
INDIANA
OHIO
Louisville
BEARGRASS CREEK
KENTUCKY
MO.
TENNESSEE
Legend - Status of Work
Work completed as of September 2003
Work underway with funds available for FY 04
Work proposed with funds requested for FY 05
Work required to complete the project after FY 05
METROPOLITAN LOUISVILLE
BEARGRASS CREEK
LOUISVILLE DISTRICT
GREAT LAKES & OHIO RIVER DIVISION
1 January 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Metropolitan Louisville, Pond Creek, Kentucky (Continuing)

LOCATION: The project is located in the central and eastern portions of the 126 square mile Pond Creek watershed, in southern Jefferson County, Kentucky.

DESCRIPTION: The project consists of construction of detention basin storage at the Melco Detention Basin on Northern Ditch and the Vulcan Quarry Detention Basin on Fishpool Creek; channel enlargement along approximately 2.4 miles of Pond Creek and 1.5 miles of Northern Ditch; a multipurpose maintenance road/hiking trail along the Pond Creek channel improvement; and a fifteen acre wetlands environmental restoration component at a site owned by the local sponsor. All work is programmed.

AUTHORIZATION: The Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 12.2 to 1 at 7 3/4 percent.

TOTAL BENEFIT-COST RATIO: 2.0 to 1 at 7 3/4 percent.

INITIAL BENEFIT-COST RATIO: 2.78 to 1 at 7 3/4 percent (FY 1997).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Project Design Memorandum, dated May 1995, at 1995 price levels.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$15,300,000
Estimated Non-Federal Cost		5,500,000
Cash Contribution	1,500,000	
Other Costs	4,000,000	
Total Estimated Project Cost		$20,800,000

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Phase I (Env. Rest.)	100	
Phase II (Vulcan)	100	
Phase III (Melco)	100	
Phase IV (Ch. Imp)	TBD	To Be Determined
Entire Project	TBD	To Be Determined

PHYSICAL DATA	
Channel Improvement	3.9 miles
Detention Basin Storage	2 @ 1,600 acre/ft
Wetlands Env. Restoration	15 acres
Maint. Rd/Hike-Bike Trail	3.4 miles
Permanent Easements	65.7 acres

SUMMARIZED FINANCIAL DATA (Continued)

			ACCUM. PCT OF EST. FED. COST
Allocations to 30 September 2003	$ 9,001,000		
Conference Allowance for FY 2004	2,500,000		
Allocation for FY 2004	494,000	1/	
Allocations through FY 2004	9,495,000		62
Allocation Requested for FY 2005	2,543,000		79
Programmed Balance to Complete after FY 2005	3,262,000		
Unprogrammed Balance to Complete after FY 2005	$ 0		

1/ Reflects $553,000 reduction assigned as savings and slippage, $15,000 rescinded in accordance with the Consolidated Appropriations Act, 2004, and $1,438,000 reprogrammed from the project.

JUSTIFICATION: The project is located in southwestern Jefferson County, Kentucky, and drains an area of approximately 71 square miles. Approximately 5,500 structures are located within the highly urbanized Pond Creek floodplain. Due to rapid residential and commercial development within the area, properties along Pond Creek and tributaries now have only a two-year level of protection, leaving residential, commercial, and industrial structures vulnerable to disastrous flash floods. The flood of record occurred in March 1964. A recurrence of this flood today would result in damages of approximately $106 million, under 1995 price levels and conditions of development. The most recent flood experienced in the basin was between a 50 and 100-year flood event, occurred in March 1997, and caused damages to residential and commercial properties in the basin that totaled approximately $201 million.

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	$ 3,999,000
Recreation	76,000
Total	$ 4,075,000

FISCAL YEAR 2005: The requested amount will be applied as follows

Continue Channel Improvements	$ 2,200,000
Planning, Engineering, and Design	108,000
Construction Management	155,000
Project Management	80,000
Total	$ 2,543,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Const/Reimb	Annual OMRR&R Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal area.	$ 4,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay approximately 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25.5 percent and bear all costs of operation, maintenance, repair, replacement, and rehabilitation of flood control facilities, which meets mandatory 5% cash requirement plus total of all LERRD credits.	978,000	$ 68,000
Pay one-half of the separable costs allocated to recreation and bear all costs to operate, maintain, repair, replace, and rehabilitate recreation facilities.	383,000	1,000
Pay approximately 22.5 percent of the costs allocated to environmental restoration to bring the total non-Federal share of environmental restoration costs to 25 percent and bear all costs of operation, maintenance, repair, replacement, and rehabilitation of environmental restoration facilities.	139,000	1,000
Total Non-Federal Costs	$ 5,500,000	$ 70,000

The non-Federal sponsor has agreed to make all payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The non-Federal cost sharing partner is the Louisville and Jefferson County Metropolitan Sewer District (MSD).

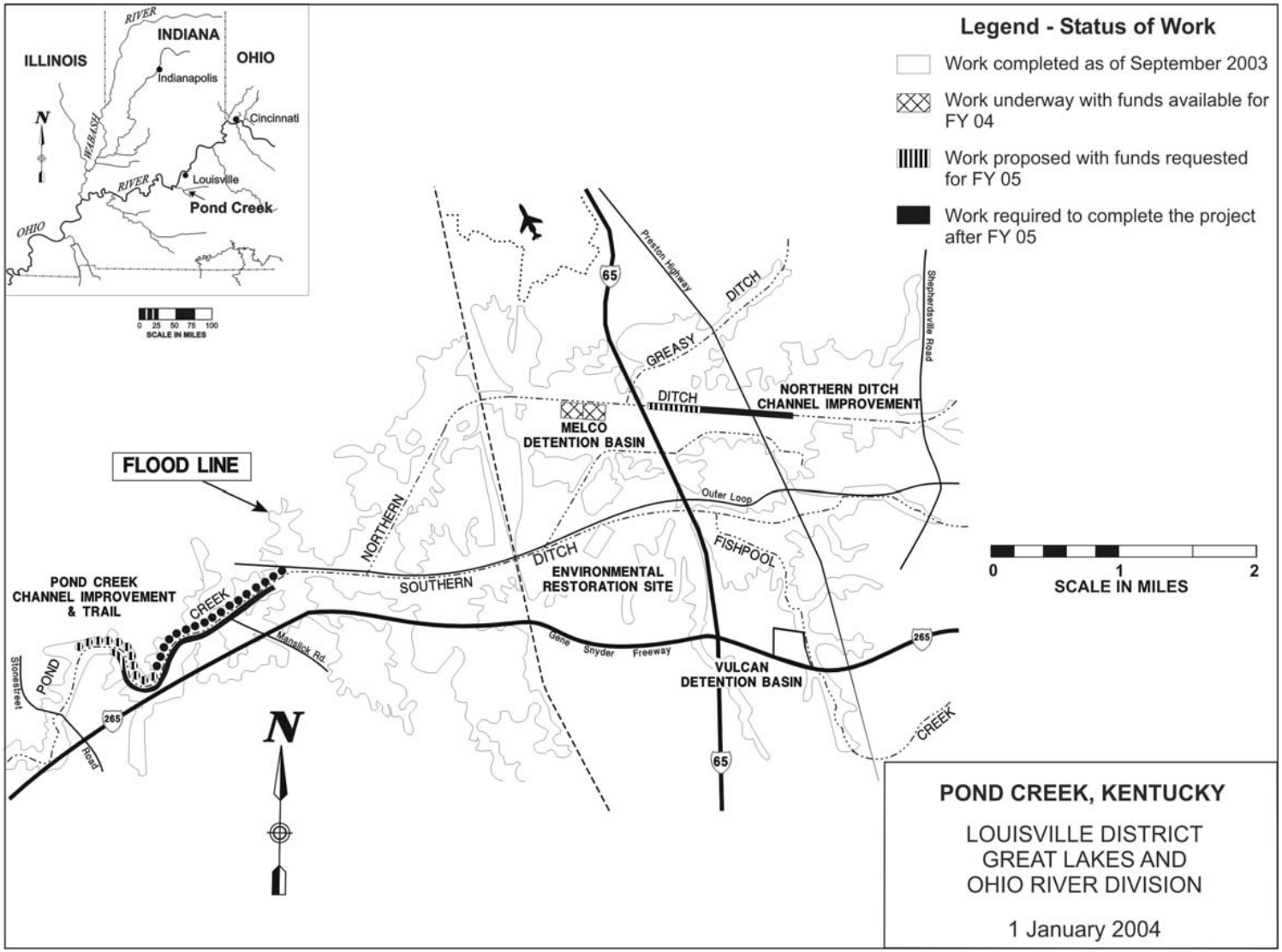
The Project Cooperation Agreement was executed in March 1998. The current non-Federal cost estimate of $5,500,000, which includes a cash contribution of $1,500,000, is an increase of $258,000 from the non-Federal cost estimate of $5,242,000 noted in the Project Cooperation Agreement, which included a cash contribution of $1,074,000. This increase in cost is due to the application of bioengineering techniques and a more detailed cost estimate for the Channel Improvement along Northern Ditch. The non-Federal sponsor continues to demonstrate they have a reasonable and implementable plan for meeting their financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $15,300,000 is the same as presented to Congress in FY 2004.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment and a Finding of No Significant Impacts (FONSI) have been signed and were included in the Interim Feasibility Report, dated March 1994. In addition, a Section 404(b)(1) Evaluation has been completed and a 401 Water Quality Certification has been obtained from the Kentucky Division of Water.

OTHER INFORMATION: Funds to initiate Preconstruction Engineering and Design (PED) were appropriated in FY 1994 and funds to initiate construction were appropriated in FY 1997.

The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


Legend - Status of Work
Work completed as of September 2003
Work underway with funds available for FY 04
Work proposed with funds requested for FY 05
Work required to complete the project after FY 05
ILLINOIS
INDIANA
OHIO
Indianapolis
Cincinnati
Louisville
Pond Creek
WABASH RIVER
RIVER
OHIO
0 25 50 75 100
SCALE IN MILES
FLOOD LINE
MELCO DETENTION BASIN
NORTHERN DITCH CHANNEL IMPROVEMENT
DITCH
GREASY
Preston Highway
Shepherdsville Road
65
Outer Loop
NORTHERN
SOUTHERN
DITCH
ENVIRONMENTAL RESTORATION SITE
FISHPOOL
POND CREEK CHANNEL IMPROVEMENT & TRAIL
CREEK
Manslick Rd.
Gene Snyder Freeway
265
VULCAN DETENTION BASIN
POND
Stonestreet
Road
CREEK
0 1 2
SCALE IN MILES
N
POND CREEK, KENTUCKY
LOUISVILLE DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION
1 January 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Metropolitan Region of Cincinnati, Duck Creek, Ohio (Continuing)

LOCATION: The project encompasses 3.2 miles of stream reach in the City of Cincinnati and the Village of Fairfax, in Hamilton County, Ohio.

DESCRIPTION: The recommended plan consists of 1,200 feet of stream channel relocation; 8,500 feet of streambank protection; 3,300 feet of earth levees; 7,100 feet of concrete floodwalls; 1,100 feet of triple box culvert, widening of one railroad bridge; demolition of one abandoned highway bridge; one pump station for interior drainage; one automated floodgate closure; one emergency access road; one flood emergency warning system; 32.1 acres of permanent easements and 10.0 acres of temporary easements; and environmental mitigation. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1996 and Water Resources Development Act of 2000.

REMAINING BENEFIT-COST RATIO: 4.4 to 1 at 7 3/4 percent.

TOTAL BENEFIT-COST RATIO: 1.1 to 1 at 7 3/4 percent.

INITIAL BENEFIT-COST RATIO: 1.26 to 1 at 7 3/4 percent (FY 1997).

BASIS OF BENEFIT-COST RATIO: Project Design Memorandum for Duck Creek, Ohio, dated January 1996, at January 1996 price levels. An economic update of the Duck Creek, Cincinnati, OH study was completed in September 2000 at October 2000 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 32,691,000	Entire Project	37	To Be Determined
Estimated Non-Federal Cost		4,200,000	PHYSICAL DATA		
Cash Contribution	1,828,000				
Other Costs	2,372,000		Levees	3,300 ft.	Access Road 1
			Floodwalls	7,100 ft.	Widen R.R. Bridge 1
Total Estimated Project Cost		$ 36,891,000	Channel Relocation	1,200 ft.	Pump Station 1
			Streambank Protection	8,500 ft.	Permanet Easements 32 ac
			Triple Box Culvert	1,100 ft.	Demolish Hwy Bridge

Division: Great Lakes & Ohio River District: Louisville Metropolitan Region of Cincinnati, Duck Creek, OH

SUMMARIZED FINANCIAL DATA (Continued)

			ACCUM. PCT OF EST. FED. COST
Allocations to 30 September 2003	$	13,130,000	
Conference Allowance for FY 2004		8,500,000	
Allocation for FY 2004		5,516,000 1/	
Allocations through FY 2004		18,646,000	57
Allocation Requested for FY 2005		760,000	59
Programmed Balance to Complete after FY 2005	$	13,285,000	
Unprogrammed Balance to Complete after FY 2005		0	

1/ Reflects $1,881,000 reduction assigned as savings and slippage, $50,000 rescinded in accordance with the Consolidated Appropriations Act, 2004, and $1,053,000 reprogrammed from the project.

JUSTIFICATION: Duck Creek suffers from frequent flash flooding affecting roads, utilities, 9 residential properties, and 32 commercial/industrial properties valued at $62.4 million; threatens over 1,000 jobs in manufacturing; and disrupts production. The most recent out-of-bank flooding causing property damage occurred in June 1997 and July 2001. Threatening flood conditions occurred 5 times in a four-month period during 1991, with plant closures during at least one of these events. The potential for frequent damaging floods and for less frequent but catastrophic flooding exists during any given year. Additional significant flooding occurred in 1982 and 1985. These two floods are estimated to have been a 25-year frequency event and a 10-year frequency event, respectively. A recurrence of these floods would cause damages estimated at $5.6 million and $1.2 million, respectively, in 1995 price levels and conditions of development. The recommended plan reduces average annual flood damages by 94 percent. The recommended plan provides a uniform 100-year level of protection for the three protected areas.

Average annual benefits are as follows

Annual Benefits	Amount
Flood Control	$ 3,874,000
Advance Bridge Replacement	64,000
Location	9,000
Total	$ 3,947,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Phase II-A Construction Contract	260,000
Complete Phase III Construction Contract	200,000
Continue Planning, Engineering and Design	150,000
Construction Management	150,000
Total	$ 760,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 and modified by the Water Resources Development Act of 2000, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Const/Reimb	Annual OMRR&R Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 2,291,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	81,000	
Pay approximately 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation, maintenance, repair, replacement, and rehabilitation. of flood control facilities.	1,828,000	$ 55,000
Total Non-Federal Costs	$ 4,200,000	$ 55,000

The non-Federal sponsors have agreed to make all payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The non-Federal sponsors are the City of Cincinnati, Ohio, and the Village of Fairfax, Ohio. The terms of the Project Cooperation Agreement (PCA) have been discussed with each sponsor and each understands its responsibilities. The PCA was executed in December 1997. A PCA amendment to support the new authorized total project cost and maximum non-federal cost is scheduled to be executed in July 2003. In May, 1993, the Cincinnati City Council approved a rate increase by the Cincinnati Stormwater Management Utility that included funds for the city's share of project costs. The Village of Fairfax has acquired and is acquiring the necessary Right-of-Way for construction of the project.

The current non-Federal cost estimate of $4,200,000, which includes a cash contribution of $1,828,000, is the same as the last non-Federal cost estimate presented to Congress (FY 2004). The cost estimate reflects the project's modified authorization in the Water Resources Development Act of 2000 which capped the non-Federal sponsor's costs.

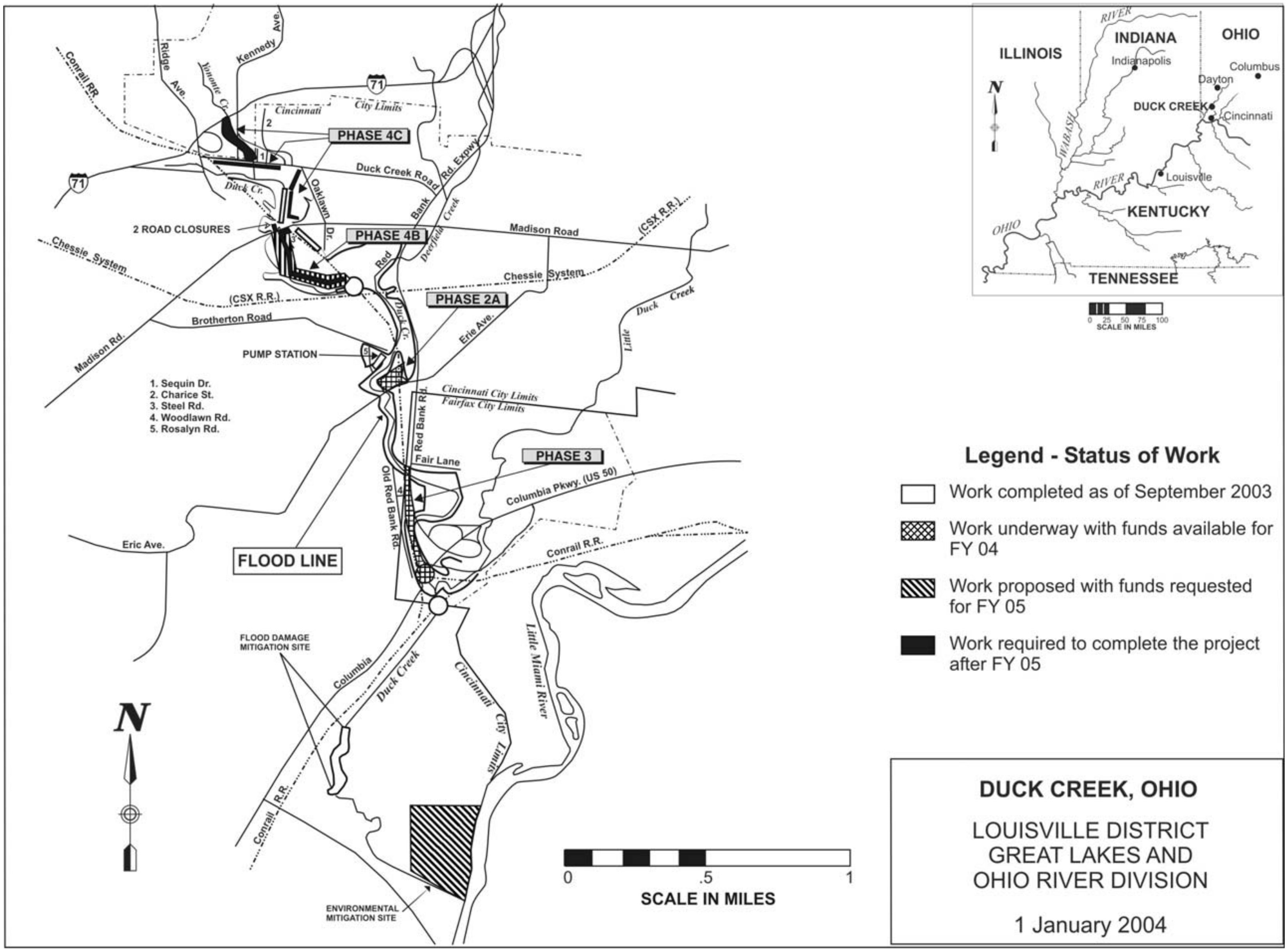
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $32,691,000 is an increase of $336,000 from the latest estimate ($32,355,000) presented to Congress (FY 2004). The change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 336,000
Total	$ 336,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment was conducted and a Finding of No Significant Impact was signed on 14 January 1994.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1994. Funds to initiate construction were appropriated in FY 1997.

The scheduled completion date is the same as the latest presented to Congress (FY 2004), "To Be Determined".


PHASE 4C
PHASE 4B
PHASE 2A
PHASE 3
2 ROAD CLOSURES
PUMP STATION
FLOOD LINE
FLOOD DAMAGE MITIGATION SITE
ENVIRONMENTAL MITIGATION SITE
1. Sequin Dr.
2. Charice St.
3. Steel Rd.
4. Woodlawn Rd.
5. Rosalyn Rd.
Duck Creek Road
Madison Road
Brotherton Road
Chessie System
(CSX R.R.)
Conrail R.R.
Columbia Pkwy. (US 50)
Cincinnati City Limits
Fairfax City Limits
Little Duck Creek
Little Miami River
Red Bank Rd.
Old Red Bank Rd.
Fair Lane
Erie Ave.
Eric Ave.
Oaklawn Dr.
Ridge Ave.
Kennedy Ave.
Madison Rd.
71
N
0
.5
1
SCALE IN MILES
ILLINOIS
INDIANA
OHIO
KENTUCKY
TENNESSEE
Indianapolis
Columbus
Dayton
DUCK CREEK
Cincinnati
Louisville
WABASH
OHIO RIVER
SCALE IN MILES
Legend - Status of Work
Work completed as of September 2003
Work underway with funds available for FY 04
Work proposed with funds requested for FY 05
Work required to complete the project after FY 05
DUCK CREEK, OHIO
LOUISVILLE DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION
1 January 2004

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Levisa and Tug Forks of the Big Sandy River and Upper Cumberland River, West Virginia, Virginia and Kentucky (Continuing)

LOCATION: The Levisa and Tug Forks are situated in southwestern West Virginia, southeastern Kentucky, and western Virginia and converge at Fort Gay, West Virginia, and Louisa, Kentucky, to form the Big Sandy River. The Levisa Fork Basin encompasses 2,326 square miles. The project area includes the mainstem Levisa Fork from Louisa, Kentucky, to Grundy, Virginia (approximately 100 stream miles excluding Fishtrap Lake), and the mainstem Russell Fork from its confluence with the Levisa Fork, to and including Haysi, Virginia (approximately 31 stream miles). Projects are located in Pike County, Floyd County, Johnson County, and Lawrence County in Kentucky and Buchanan County, Dickenson County in Virginia. The Tug Fork Basin encompasses 1,555 square miles. The project area is comprised of approximately 140 stream miles from Louisa, Kentucky to Welch, West Virginia. Projects are located in Pike County, Martin County and Floyd County in Kentucky, Wayne County, Mingo County and McDowell County in West Virginia, and Buchanan County in Virginia. The Upper Cumberland River Basin encompasses 1,977 square miles. Approximately 132 stream miles of the Cumberland River from its origin at Harlan, Kentucky, to Cumberland Falls are included in the project area. Projects are located in Harlan County, Knox County, Bell County, and Whitely County in Kentucky.

DESCRIPTION: The project includes levees, floodwalls, pump stations, and a flood control reservoir; the floodproofing and evacuation of structures located in the flood hazard areas; and development of relocation sites for the affected areas. Work is complete at Williamson, West Virginia; Barbourville, Kentucky; South Williamson, Kentucky; and Pineville, Kentucky. Work at Matewan, West Virginia, Hatfield Bottom area of Matewan, West Virginia, Wayne County, West Virginia, McDowell County, West Virginia, Upper and Lower Mingo County, West Virginia, Harlan, Kentucky, Williamsburg, Kentucky, Pike County (Tug Fork), Kentucky, Martin County, Kentucky, Middlesborough, Kentucky, Clover Fork, Kentucky, Town of Martin, Kentucky, and Grundy, Virginia are under way with available funds. Detailed Project Reports for Pike County (Tug Fork) Tributaries, Kentucky, Pike County (Levisa Fork), Kentucky, Floyd County, Kentucky, Buchanan County, Virginia, Dickenson County, Virginia, Levisa Fork and Upper Cumberland River Basins are under way with available funds. Flood warning systems for the Tug and Levisa basins are complete. The Grundy, Virginia, non-structural project and the Harlan County, Kentucky, Detailed Project Report are programmed. All other work is unprogrammed. (See status and completion schedule).

AUTHORIZATION: The Energy and Water Development Appropriations Act, 1981, and Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: Not Applicable. 1/

TOTAL BENEFIT-COST RATIO: Not Applicable. 1/

INITIAL BENEFIT-COST RATIO: Not Applicable. 1/

BASIS OF BENEFIT-COST RATIO: Not Applicable. 1/

1/ An overall project benefit-cost ratio was not computed because the Congress, in the Energy and Water Development Appropriations Act, 1981, found that the benefits attributable to the flood control measures authorized by the Act exceed their costs.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost			$2,295,784,000 2/
Programmed Construction		$ 916,982,000	
Unprogrammed Construction		1,378,802,000	
Estimated Non-Federal Cost			132,650,000 3/
Programmed Construction		$ 45,186,000	
Cash Contributions	$ 12,822,000		
Other Costs	32,364,000		
Unprogrammed Construction		$ 87,464,000	
Cash Contributions	87,464,000		
Other Costs	0		

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM. PCT. OF EST FED. COST
Total Estimated Programmed Construction Cost	$ 962,168,000	
Total Estimated Unprogrammed Construction Cost	$ 1,466,266,000	
Total Estimated Project Cost	$ 2,428,434,000	
Allocations to 30 September 2003	840,388,000 2/	
Budget Request for FY 2004	15,000,000	
Conference Allowance for FY 2004	55,800,000	
Allocation for FY 2004	55,471,000 4/	
Allocations through FY 2004	895,859,000	38
Allocation Requested for FY 2005	6,000,000	38
Programmed Balance to Complete after FY 2005	15,123,000	
Unprogrammed Balance to Complete after FY 2005	1,378,802,000	

2/ Includes payment of $850,000 from the Department of Treasury Judgment Fund for a claim at Matewan, WV.
3/ Does not include the following non-Federal contributions, which are not part of the authorized project cost: Pineville, KY -- $17,691,000 in costs allocated to the highway portion of an integrated highway/floodwall element constructed in cooperation with the Commonwealth of Kentucky for Pineville & Wallsend, Kentucky.
4/ Reflects $329,000 rescinded from project in accordance with the Consolidated Appropriations Act, 2004.

STATUS (1 Jan 2004)	PERCENT COMPLETE	COMPLETION SCHEDULE
Structural Measures		
Pineville, KY	100	
Williamson Area, WV	100	
South Williamson, KY	100	
Barbourville, KY (Cutoff)	100	
Barbourville, KY Levee/Fldwll	100	
Matewan, WV	99	Indefinite
Harlan, KY	100	
Williamsburg, KY	100	
Middlesborough, KY	99	Indefinite
Haysi Dam, VA	0	Indefinite
City of Cumberland	0	Indefinite
Levisa Basin Flood Warning System	100	
Tug Basin Flood Warning System	100	
Detailed Project Reports		
Upper Cumberland Basin:		
Harlan, KY	100	
Williamsburg, KY	100	
Middlesborough, KY	100	
Upper Cumberland River Basin	100	
Clover Fork, KY	100	
City of Cumberland, KY	100	
Harlan Co., KY	100	
Bell Co., KY	54	Indefinite
Knox Co., KY	0	Indefinite
Whitley Co., KY	0	Indefinite
Levisa Fork Basin:		
Grundy, VA	100	
Levisa Basin/Haysi Dam GPS	100	
Buchanan Co., VA	100	
Town of Martin, KY	100	
Pike Co. (Levisa Fork), KY	85	Indefinite
Floyd Co. Ky	50	Indefinite

STATUS (1 Jan 2003)	PERCENT COMPLETE	COMPLETION SCHEDULE
Levisa Fork Basin (Continued)		
Johnson Co., Ky	8	Indefinite
Dickenson Co., VA	99	Indefinite
Lawrence Co. (Levisa), KY	0	Indefinite
Tug Fork Basin:		
Matewan, WV	100	
South Williamson, KY	100	
Lower Mingo Co., WV	100	
Upper Mingo Co., WV	100	
Pike Co. (Tug Fork), KY	100	
Tug Fork GDM	100	
Matewan, Hatfield Bottom, WV	100	
Martin Co., KY	100	
Wayne Co., WV	100	
McDowell Co., WV	100	
Lower Mingo Co., WV, Tribs	100	
Pike Co., KY, Supplement	100	
Lawrence Co. (Tug Fork), KY	0	Indefinite
Nonstructural Measures		
Williamson, WV	100	
Matewan, WV	100	
Pineville, KY	100	
South Williamson, KY	100	
Barbourville, KY	100	
Matewan, Hatfield Bottom, WV	99	Indefinite
Williamsburg, KY	99	Indefinite
Harlan, KY	98	Indefinite
Lower Mingo Co., WV	95	Indefinite
Pike County, KY (Tug Fork)	40	Indefinite
Middlesborough, KY	98	Indefinite
Upper Mingo County, WV	95	Indefinite
Levisa Basin, VA & KY	0	Indefinite

STATUS (1 Jan 2004)	PERCENT COMPLETE	COMPLETION SCHEDULE
Nonstructural Measures (continued):		
Grundy, VA	48	TBD
Martin County, KY	65	Indefinite
Wayne County, WV	98	Indefinite
McDowell County, WV	20	Indefinite
Clover Fork, KY	31	Indefinite
Town of Martin	5	Indefinite
City of Cumberland	1	Indefinite
Harlan County, KY	0	Indefinite

PHYSICAL DATA			
WILLIAMSON AREA Williamson CBD	Floodwall: Height - 22 ft. avg. Length - 3,900 ft. Pump Stations 2 ea. 30,000 and 70,000 GPM	Lands and Damages: Acres - 18.24 fee 5.76 easement Type – Urban	Relocations: Railroad, highways, city and public utilities
WILLIAMSON AREA West Williamson	Floodwall: Height - 17 ft. avg. Length - 6,237 ft. Pump stations: 1 ea. @ 40,000 GPM	Lands and Damages: Acres - 25.72 fee 31.03 easement Type – Urban	Relocations: Railroad, highways, city and public utilities
WILLIAMSON AREA Snagging and Clearing	N/A	Lands and Damages: Acres - 86.62 easement Type – Riverbank	N/A
		Lands and Damages:	Relocations:

PHYSICAL DATA			
MATEWAN	Floodwall/fill: Height - 13 ft. avg. Length - 2,500 ft. Pump stations: 1 ea. @ 18,000 GPM	Acres - 45.41 fee 48.88 easement	Highway 49 and bridge, Route 9, fire station, town hall and utilities
SOUTH WILLIAMSON	Floodwall: Height - 21 ft. avg. Length - 2,700 ft. Pump Stations: 1 ea. @ 12,000 GPM	Lands and Damages: Acres - 21.52 fee 5.46 easement Type – Residential	Relocations: School cafeteria, highways, county and public utilities
PINEVILLE	Floodwall/Levee/Highway Height - 25 ft. avg. Length - 7,800 ft. Wallsend Levee Height - 25 ft. avg. Length - 4,300 ft.	Lands and Damages: Acres – 118 Type – Urban	Relocations: Wallsend Bridge, Pine Street Bridge
BARBOURVILLE Cutoff	High Flow Diversion Width - 150 ft. Depth - 40 ft. max. Length - 5,000 ft.	Lands and Damages: Acres – 96 Type – Agricultural	Relocations: Tye Bend Rd Bridge
BARBOURVILLE Levee/Floodwall	Levee/Floodwall Height - 26 ft. avg. Length - 19,536 ft.	Lands and Damages: Acres – 144 Type – Urban	Relocations: Highway 459 Bridge
HARLAN (Phase I) Harlan Tunnels	Diversion Tunnels Length - 4 ea @ 2000 ft.	Lands and Damages: Acres – 12 Type – Urban	Relocations: KY Hwy 38 Bridge KY Hwy 72 Bridge

PHYSICAL DATA (continued)			
HARLAN (Phase II) Harlan Floodwall	Floodwall/Levee Length - 4,875 ft Height - 24 ft	Lands and Damages: Acres – 16 Type – Urban	Relocations: KY Hwy 11
HARLAN (Phase III) Loyall/Rio Vista Diversion/Levee/Floodwall	Diversion Width - 120 ft channel Depth - 300 ft. max. Length - 3,800 ft. Levee/Floodwall Height - 24 ft. Length - 8,600 ft.	Lands and Damages: Acres – 225 Type – Urban	Relocations: KY Hwy 840 Bridge Park Drive Bridge Highway 413 CSX Railway
WILLIAMSBURG	Levee/Floodwall Height - 15 ft. avg. Length - 4,800 ft.	Lands and Damages: Acres – 23 Type – Urban	Relocations: Public utilities
MIDDLESBOROUGH	Channel Length - 5.2 mi.	Lands and Damages: Acres – 132	Relocations: Public utilities

PHYSICAL DATA (continued)			
HAYSI DAM	Concrete Arch Dam: Height - 202 ft. Length - 825 ft. Spillway: Type – Ogee Weir Length - 170 ft. Discharge - 151,000 cfs Reservoir: Flood Control 28,400 ac.ft. Conservation 8,870 ac.ft. Total 37,270 ac.ft.	Lands and Damages: Acres - 8,335 fee Type - Rural residential & subsistence farms Improvements- Predominantly farm buildings/ residential	Relocations: Virginia Secondary Hwy. 609 Public utilities
NON STRUCTURAL	Primarily voluntary relocations from flood prone areas and floodproofing of unprotected development suitable for such measures. Specific physical data determined during preparation of project reports for each individual project.		
DETAILED PROJECT REPORTS	Detailed project reports that currently are under way for other locations in the authorized project area will be continued or completed within available project funds.		

JUSTIFICATION: Tug Fork - Historically, repeated flooding in the Tug Fork Valley has brought extensive damage to homes and other developments. During the past 38 years, major floods occurred in January, 1957, March, 1963, March, 1967, April, 1977, and May, 1984. The 1977 flood was the flood of record along much of the Tug Fork. This devastating flood caused valley-wide damages approaching $200 million at 1977 price levels. Six hundred homes were totally destroyed and 4,700 homes were flooded. Physical losses from direct damage to non-residential buildings and contents exceeded $41 million. Over half of all damages occurred in Mingo County, West Virginia. Pike County, Kentucky had about $45 million in damages. The May, 1984 flood resulted in an estimated $117 million in damages along the Tug Fork. As in previous floods, the extensive bituminous coal mining industry of the basin was disrupted due to direct damage, interrupted transportation, and lost time because of diversions of the work force to flood fighting and cleanup.

Levisa Fork - The same repeated flooding characteristic of the Tug Fork has plagued the Levisa Fork area. During the April, 1977 flood, damages amounted to approximately $93 million at 1977 price levels. The May, 1984 flood caused an additional $90 million in losses along the mainstem of the Levisa Fork and its primary upstream tributary, Russell Fork. Impacts on residential properties, commercial and transportation facilities, and the mining industry were similar to those described in the Tug Fork areas.

Upper Cumberland - Flooding continues to bring recurring damage to the Upper Cumberland area. Total damages in all categories amounted to $34.7 million for this area during the April, 1977 event. The Pineville element protects about 185 acres of urban land containing structures valued at $25.7 million. At Barbourville, the existing project was sandbagged during the April, 1977 flood event, preventing major losses to some 700 acres of urban land containing structures valued at $52.4 million. The currently unprotected area is a mix of agriculture and urban land and contains structures valued at over $6.0 million. During the 1977 flood, no area of Harlan County escaped damage, and four persons drowned and approximately 1,800 persons were left homeless. Total flood damage and associated costs came to almost $31 million.

The following counties qualify as areas of "substantial and persistent" unemployment: West Virginia - Mingo, McDowell, Wayne; Kentucky - Martin, Pike, Lawrence, Floyd, Johnson, Bell, Harlan, Knox, Whitley; Virginia – Buchanan, Dickenson.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Non Structural Measures

Grundy, Virginia

Voluntary Flood Proofing & Acquisition	1,462,500
Continue Relocations	95,000
Continue Construction	3,450,000
Planning, Engineering and Design	750,000
Construction Management	242,500
Total	$ 6,000,000

PROJECT COSTS: Project elements under construction on 30 April 1986 are exempted from construction cost sharing in accordance with the Water Resources Development Act of 1986. These elements are Williamson Area, West Virginia; South Williamson, Kentucky; Matewan, West Virginia; and Pineville, Kentucky. The Harlan and Barbourville elements were exempted from construction cost sharing by Title I, Section 103 of Water Resources Development Act of 1986. The Hatfield Bottom area of Matewan, West Virginia, was included in the Matewan, West Virginia, element area by the Energy and Water Development Appropriations Act, 1991, Public Law 101-514, and as such, is exempt from cost sharing.

Construction cost sharing is required for all other elements in accordance with the Water Resources Development Act of 1986. The sponsor of each project element for which construction is initiated after 30 April 1986 must provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas; modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the element; pay a cash contribution of no less than 5 percent of the costs allocated to structural flood control to bring the total non-Federal share of structural flood control costs to 25 percent; and bear 25 percent of non-structural flood control costs, including the value of real estate interests and relocations contributed by the sponsor. In accordance with Section 103(m) of the Act, these requirements are subject to the ability of the non-Federal sponsor to pay.

In accordance with Section 202, Energy and Water Development Appropriations Act, 1981 and Public Law 99-662, non-Federal interests must bear all costs of operation, maintenance, and replacement of completed facilities.

FEDERAL COSTS:

Project Element	Payments During Construction and Reimbursements (Funded/Programmed Work)	Payments During Construction and Reimbursements (Unprogrammed Work)	Annual Operation, Maintenance, and Replacement Costs
Williamson Area, WV	$105,786,000	$ 0	$ 0
Williamson Area, WV NS	24,004,000	0	0
Matewan, WV	57,999,000	0	0
Matewan, WV NS	10,129,000	0	0
Hatfield Bottom, Matewan, WV	8,300,000	0	0
South Williamson, KY	25,873,000	0	0
South Williamson, KY NS	28,233,000	0	0
Pineville, KY	48,406,000	0	0
Pineville, KY NS	3,990,000	0	0
Barbourville, KY	32,007,000	0	0
Barbourville, KY NS	4,179,000	0	0
Harlan, KY	159,626,000	0	0
Harlan, KY NS 17,217,000	0	0	0
Grundy, VA NS	81,310,000	0	0
Lower Mingo County, WV NS	46,383,000	0	0
Williamsburg, KY	18,472,000	0	0
Williamsburg, KY NS	1,620,000	0	0
Pike County, KY NS	34,367,000	67,169,000	0
Upper Mingo County, WV NS	14,946,000	0	0
Middlesborough, KY	31,725,000	205,000	0
Middlesborough, KY NS	1,250,000	0	0
Clover Fork, KY NS	24,218,000	25,782,000	0
City of Cumberland Str	9,020,000	8,658,000	0
City of Cumberland NS	1,702,000	9,120,000	0
Harlan County, KY	8,634,000	37,536,000	0
Martin County, KY NS	25,758,000	17,352,000	0
Wayne County, WV NS	8,797,000	0	0
Haysi Dam, VA & KY	82,000	129,288,000	0
Levisa Basin, VA & KY NS	0	612,099,000	0
McDowell County, WV NS	17,929,000	168,456,000	0
Levisa Fk Flood Warning Syst	400,000	0	0
Tug Fk Flood Warning Syst	400,000	0	0
Town of Martin, KY NS	15,326,000	77,314,000	0
Other costs 1/	48,894,000	225,823,000	0
Total Federal Cost 1/	$ 916,982,000	$ 1,378,802,000	$ 0

1/ Pre-WRDA 86 costs plus costs for unapproved reports, which will be included in project costs upon report approval.

NON-FEDERAL COSTS:

Project Element	Payments During Constr & Reimb (Funded/Programmed Work)	Payments During Construction & Reimbursements (Unprogrammed Work)	Replacement Costs	Annual Operation,
Williamson Area, WV	$ 0	$ 0		$71,000
Williamson Area, WV NS	0	0		0
Matewan, WV	76,000	0		30,000
Matewan, WV NS	0	0		0
Hatfield Bottom, Matewan, WV	0	0		0
South Williamson, KY	0	0		8,000
South Williamson, KY NS	0	0		0
Pineville, KY	0	0		20,000
Pineville, KY NS	0	0		0
Barbourville, KY	0	0		20,000
Barbourville, KY NS	0	0		0
Harlan, KY	0	0		0
Harlan, KY NS	0	0		20,000
Grundy, VA NS	32,364,000	0		21,500
Lower Mingo County, WV NS	2,441,000	0		0
Williamsburg, KY	972,000	0		20,000
Williamsburg, KY NS	85,000	0		0
Pike County, KY NS	1,809,000	3,535,000		0
Upper Mingo County, WV NS	787,000	0		0
Middlesborough, KY	1,670,000	10,000		27,000
Middlesborough, KY NS	66,000	0		0
Clover Fork, KY NS	1,275,000	1,357,000		0
City of Cumberland Str	0	930,000		0
City of Cumberland NS	0	570,000	0	
Harlan County, KY	0	2,430,000		0
Martin County, KY NS	1,355,000	910,000		0
Wayne County, WV NS	463,000	0		0
Haysi Dam, VA & KY	0	12,198,000		486,400
Levisa Basin, VA & KY NS	0	41,584,000		0
McDowell County, WV NS	944,000	8,866,000		0
Levisa Fk Flood Warning Syst	21,000	0		0
Tug Fk Flood Warning Syst	21,000	0		0
Town of Martin, KY NS	806,000	4,069,000		0
Other costs	31,000	11,005,000		0
Total Non-Federal Cost	$ 45,186,000	$87,464,000		$723,900

STATUS OF LOCAL COOPERATION:

The City of Barbourville, Kentucky signed a Section 221 Agreement for the Barbourville element on February 14, 1984, to become project sponsor for operation and maintenance after construction is complete.

The City of Pineville, Kentucky signed a Section 221 Agreement for the Pineville element on February 19, 1983, to become project sponsor for operation and maintenance. The Corps and the Commonwealth of Kentucky executed a cost-sharing arrangement for construction of the four-lane highway portion of the project.

The County of Harlan, Kentucky signed a Section 221 Agreement on October 20, 1988, to become project sponsor for operation and maintenance after construction is complete.

Mingo County, West Virginia, signed a Section 221 Agreement on March 2, 1983, agreeing to operate and maintain features of the project within its jurisdiction. The City of Williamson, Town of Matewan and Mingo County entered into a sub-agreement transferring certain responsibilities to the City.

Pike County, Kentucky, signed a Section 221 Agreement on August 1, 1983, agreeing to act as non-Federal sponsor for features of the project within its jurisdiction.

A Project Cooperation Agreement for the Lower Mingo County, West Virginia, element was executed on November 17, 1992, with the Mingo County Commission.

A Project Cooperation Agreement for the Williamsburg, Kentucky element was executed on March 10, 1995, with the City of Williamsburg, Kentucky.

A Project Cooperation Agreement for the Pike County, Kentucky element was executed on October 14, 1994, with the Pike County Kentucky Fiscal Court.

A Project Cooperation Agreement for the Upper Mingo County, West Virginia element was executed on December 20, 1995, with the Mingo County, West Virginia Commission.

A Project Cooperation Agreement for the Middlesborough, Kentucky element was executed on January 18, 1996 with the City of Middlesborough, Kentucky.

A Project Cooperation Agreement for the Martin County, Kentucky element was executed on April 21, 1997 with the Martin County Fiscal Court.

A Project Cooperation Agreement for the Wayne County, West Virginia element was executed in April 1998 with the Wayne County Commission.

STATUS OF LOCAL COOPERATION (cont.):

A Project Cooperation Agreement for the Grundy, Virginia nonstructural element was executed in August 1998 with the Town of Grundy, Virginia and the Virginia Department of Transportation (VDOT).

A Supplement to the Project Cooperation Agreement to add the Mingo County Tributaries to the Upper Mingo County West Virginia element was executed in June 1999 with the Mingo County Commission.

A Project Cooperation Agreement for the McDowell County, West Virginia element was executed in September 1999 with the McDowell County Commission.

A Project Cooperation Agreement Amendment #1 for McDowell County, West Virginia element was executed in December 2001 with the McDowell County Commission.

A Project Cooperation Agreement for the Clover Fork, Kentucky element was executed on April 13, 2000 with Harlan County, Kentucky.

A Project Cooperation Agreement for the Town of Martin, Kentucky element was executed in June, 2001 with the Floyd County Fiscal Court.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $2,295,784,000 is an increase of $70,059,000 from the latest estimate ($2,225,725,000) presented to Congress (FY 2003). This change includes the following items.

Item	Amount
Price Escalation on Real Estate	2,979,000
Authorized Modifications	67,080,000
Total	$ 70,059,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Tug Fork - The final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency (EPA) on December 3, 1982.

Pineville - The final EIS was filed with EPA on December 22, 1982.

Barbourville - The Finding of No Significant Impact (FONSI) was signed on February 1, 1984.

Harlan – The final EIS was filed with EPA on April 22, 1988. The Record of Decision was signed on August 8, 1988.

Williamsburg - The FONSI was signed on May 19, 1994.

Middlesborough - The FONSI was signed on June 9, 1995.

Town of Martin – The FONSI was signed on August 8, 2000.

Detailed Project Reports - EIS's for other areas will be scheduled as studies proceed.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1981. The Urgent Supplemental Appropriations Act, 1984 (Public Law 98-332) provided $21,000,000 for nonstructural measures at this project.

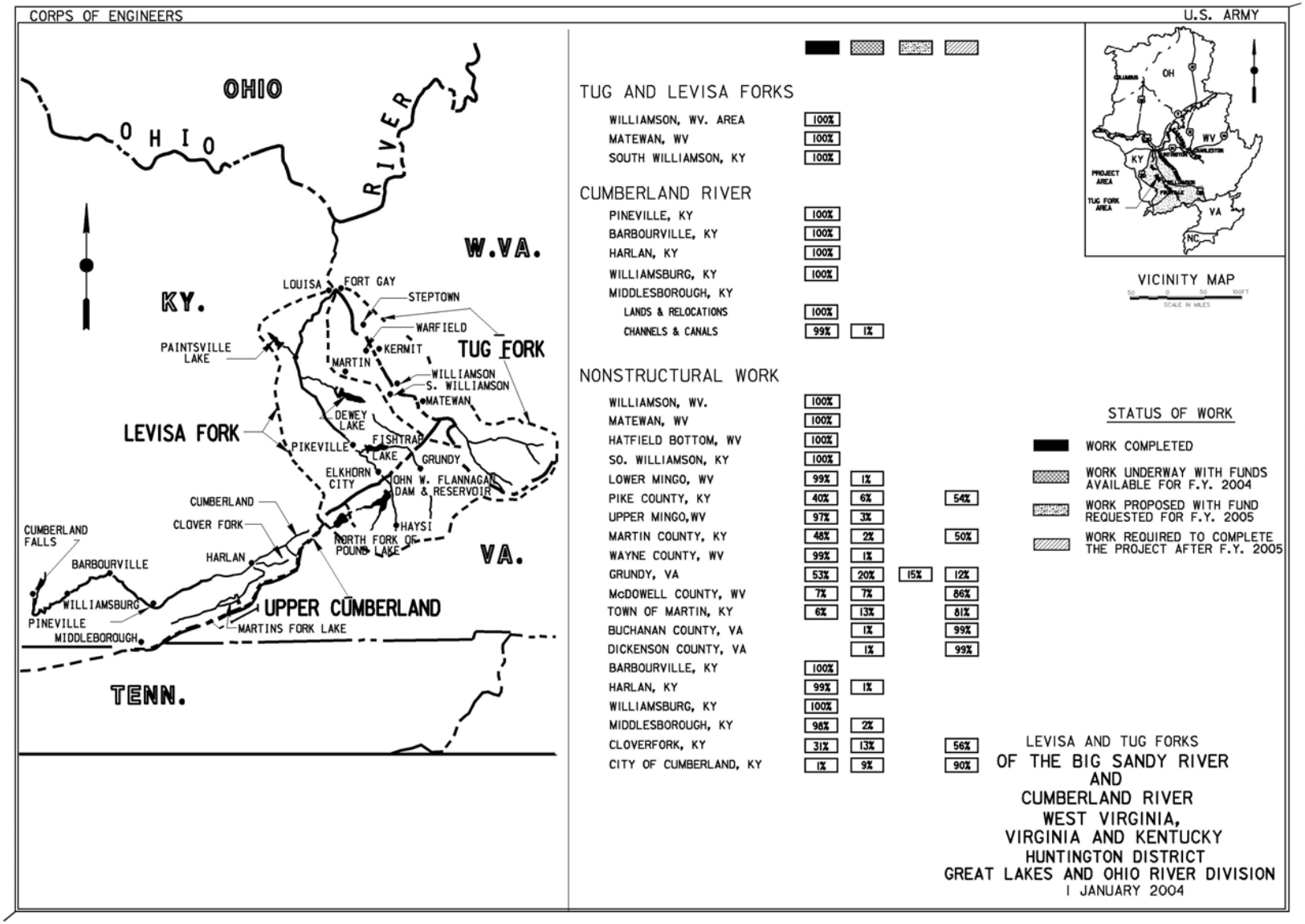
The scheduled completion date of September 2003 for Matewan, WV is a slippage from the latest completion date of September 2002 presented to Congress. This change is because the project requires completion of property transfers.

The scheduled completion date of June 2003 for the Buchanan County, Virginia Detailed Project Report is a slippage from the latest completion date of February 2002 presented to Congress. This change is due to additional time required to resolve flood protection alternatives for the schools.

The scheduled completion date of September 2003 for the Dickenson County, Virginia Detailed Project Report is a slippage from the latest completion date of September 2002 presented to Congress. This change is due to the added requirement for phase 2 HTRW investigations in the Clinchco area.

The scheduled completion date of August 2003 for the Pike County, Kentucky Supplement to the Detailed Project Report is a slippage from the latest completion date of July 2002 presented to Congress. This change is due to additional time required to determine flood protection alternatives for four public structures.

The scheduled completion date for Grundy, VA is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


CORPS OF ENGINEERS
U.S. ARMY
OHIO
OHIO RIVER
W.VA.
KY.
VA.
TENN.
LOUISA
FORT GAY
STEPTOWN
WARFIELD
KERMIT
MARTIN
WILLIAMSON
S. WILLIAMSON
MATEWAN
TUG FORK
PAINTSVILLE LAKE
LEVISA FORK
DEWEY LAKE
PIKEVILLE
FISHTRAP LAKE
GRUNDY
ELKHORN CITY
JOHN W. FLANNAGAN DAM & RESERVOIR
CUMBERLAND
CLOVER FORK
HAYSI
NORTH FORK OF POUND LAKE
CUMBERLAND FALLS
HARLAN
BARBOURVILLE
WILLIAMSBURG
PINEVILLE
MIDDLEBOROUGH
UPPER CUMBERLAND
MARTINS FORK LAKE
TUG AND LEVISA FORKS
WILLIAMSON, WV. AREA 100%
MATEWAN, WV 100%
SOUTH WILLIAMSON, KY 100%
CUMBERLAND RIVER
PINEVILLE, KY 100%
BARBOURVILLE, KY 100%
HARLAN, KY 100%
WILLIAMSBURG, KY 100%
MIDDLESBOROUGH, KY
LANDS & RELOCATIONS 100%
CHANNELS & CANALS 99% 1%
NONSTRUCTURAL WORK
WILLIAMSON, WV. 100%
MATEWAN, WV 100%
HATFIELD BOTTOM, WV 100%
SO. WILLIAMSON, KY 100%
LOWER MINGO, WV 99% 1%
PIKE COUNTY, KY 40% 6% 54%
UPPER MINGO, WV 97% 3%
MARTIN COUNTY, KY 48% 2% 50%
WAYNE COUNTY, WV 99% 1%
GRUNDY, VA 53% 20% 15% 12%
McDOWELL COUNTY, WV 7% 7% 86%
TOWN OF MARTIN, KY 6% 13% 81%
BUCHANAN COUNTY, VA 1% 99%
DICKENSON COUNTY, VA 1% 99%
BARBOURVILLE, KY 100%
HARLAN, KY 99% 1%
WILLIAMSBURG, KY 100%
MIDDLESBOROUGH, KY 96% 2%
CLOVERFORK, KY 31% 13% 56%
CITY OF CUMBERLAND, KY 1% 9% 90%
OH
WV
KY
VA
NC
PROJECT AREA
TUG FORK AREA
VICINITY MAP
STATUS OF WORK
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR F.Y. 2004
WORK PROPOSED WITH FUND REQUESTED FOR F.Y. 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2005
LEVISA AND TUG FORKS
OF THE BIG SANDY RIVER
AND
CUMBERLAND RIVER
WEST VIRGINIA,
VIRGINIA AND KENTUCKY
HUNTINGTON DISTRICT
GREAT LAKES AND OHIO RIVER DIVISION
1 JANUARY 2004

APPROPRIATION TITLE: Construction, General – Major Rehabilitation (Flood Control)

PROJECT: Mississinewa Lake, Indiana (Major Rehabilitation) (Continuing)

LOCATION: The project is located on the Mississinewa River, a tributary of the Wabash River, in Wabash, Miami, and Grant Counties in north central Indiana. The lake is located approximately 65 air miles north of Indianapolis, Indiana.

DESCRIPTION: The project will provide for increased stability of the dam by constructing a concrete cut-off wall in 2,600 feet of embankment to a depth ranging from 150 to 180 feet penetrating 5 feet into the rock foundation. The cut-off wall will prevent further loss of the embankment or overburden foundation materials into the untreated rock foundation and restore the project to full operational capability. The existing reservoir was constructed to reduce flood damages downstream of the project within the upper Wabash River Basin, and was placed in operation in October 1967. The dam is earth fill and is 8,000 feet long and 140 feet high. The top elevation of the dam is 797 feet msl. Maximum flood control storage capacity is 368,400 acre-feet. All work is programmed.

AUTHORIZATION: Flood Control Act of 1958.

REMAINING BENEFIT-COST RATIO: 6.5 to 1 at 6 7/8 percent.

TOTAL BENEFIT-COST RATIO: 1.7 to 1 at 6 7/8 percent.

INITIAL BENEFIT-COST RATIO: 1.9 to 1 at 6 7/8 percent (FY 2001).

BASIS OF BENEFIT-COST RATIO: Mississinewa Dam Major Rehabilitation Report, dated May 2000 with July update.

SUMMARIZED FINANCIAL DATA				STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 55,000,000		Entire Project	65	To Be Determined
Estimated Non-Federal Cost		0				
Cash Contribution	0					
Other Costs	0					
Total Estimated Project Cost		$ 55,000,000				

PHYSICAL DATA

Dam: Length - 8,000 ft, Height - 140 ft

Drainage Area	809 sq mi
Flood Pool	779 ft (12,830 acres)
Winter Pool	712 ft (1,280 acres)
Summer Pool	737 ft (3,180 acres)

			ACCUM. PCT OF EST. FED. COST
Allocations to 30 September 2003	$ 27,925,000		
Conference Allowance for FY 2004	21,000,000		
Allocation for FY 2004	15,367,000	1/	
Allocations through FY 2004	43,292,000		79
Allocation Requested for FY 2005	8,477,000		94
Programmed Balance to Complete after FY 2005	3,231,000		
Unprogrammed Balance to Complete after FY 2005	$ 0		

1/ Reflects $4,647,000 reduction assigned as savings and slippage, $124,000 rescinded in accordance with the Consolidated Appropriations Act, 2004, and $2,369,000 reprogrammed to the project.

JUSTIFICATION: The Mississinewa Lake Project was completed in October 1967. During the latter stages of construction in late 1966, a boil was discovered at the toe of the dam. Remedial actions were taken and the boil area was stabilized. Lateral drains were installed and the seepage was thought to be eliminated. In April 1988, settlement of roadway guardrail and the road across the top of the dam first appeared. A monitoring program was effected and has continued to the present. Recent subsurface investigations have revealed a 0.8-foot settlement of a portion of the dam. In May 1999, monitoring wells on the dam revealed that downward stresses are actively compressing the embankment in the area of the settlement and threatening the integrity of the structure. Analysis of the problem has shown the upper layer of rock foundation contains excessive voids requiring pre-treatment with grout to enable the cut-off wall excavation to then proceed with minimal slurry loss. The dam itself remains stable at this time; however, the settlement is continuing and is considered a "failure in progress", which under certain circumstances could become an "emergency" due to possible dam failure. Completion of the project on a capability schedule is imperative to minimize risks associated with subjecting the dam to additional wet seasons with potentially damaging high flood pool elevations. The rehabilitation project includes the placement of a 2,600-foot concrete cut-off wall along the full right embankment. It will extend to depths ranging from 150 to 180 feet, penetrating 5 feet into the rock foundation.

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	$ 7,156,000
Recreation	1,066,000
Total	$ 8,222,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction Contract	$ 7,819,000
Planning, Engineering, and Design	151,000
Construction Management	507,000
Total	$ 8,477,000

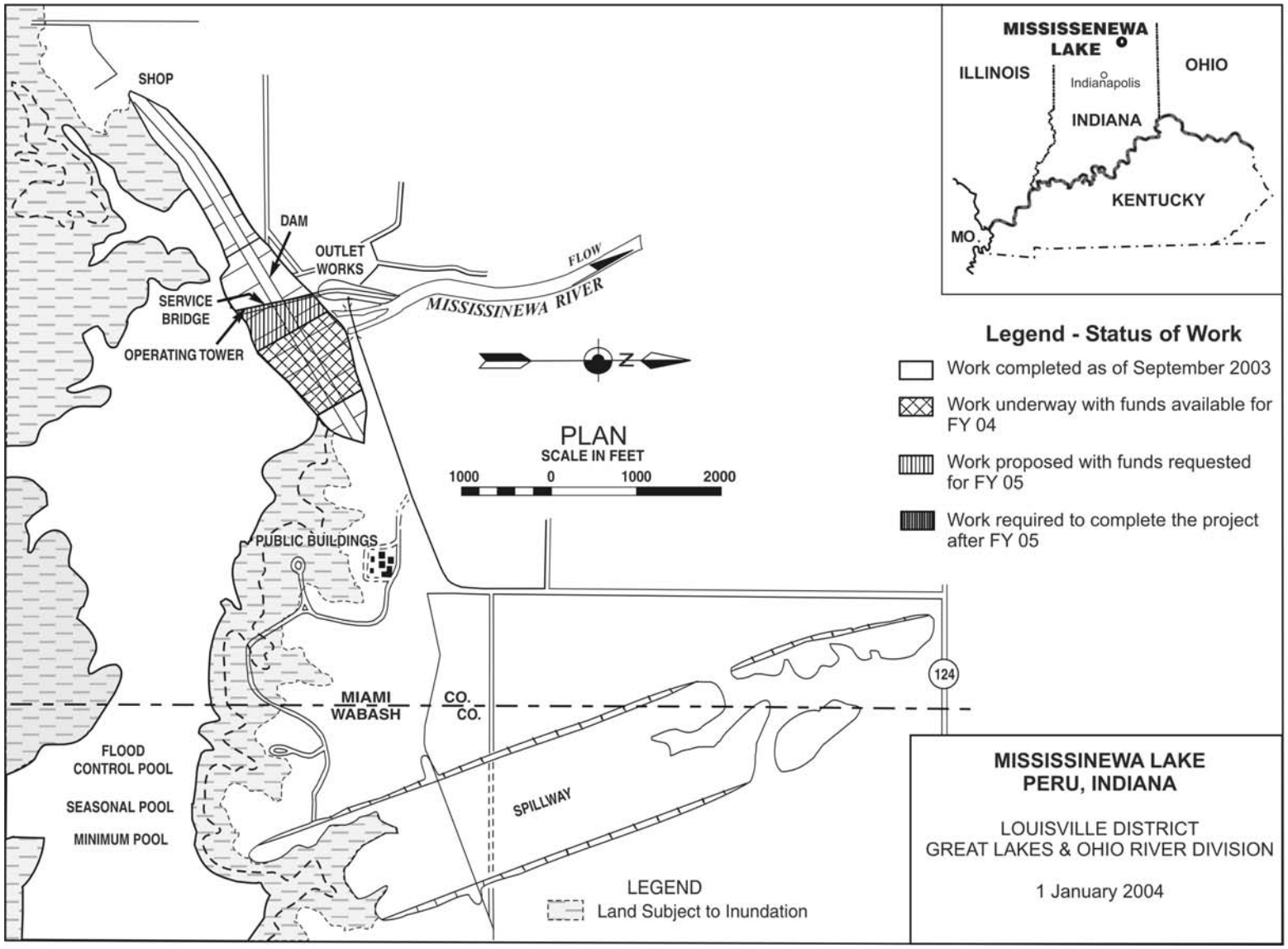
NON-FEDERAL COSTS: Funding for this project will be 100% Federal responsibility.

STATUS OF LOCAL COOPERATION: None

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $55,000,000 is the same as the latest estimate ($55,000,000) presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The proposed action consists of a repair to an existing operating project. An Environmental Assessment has been completed and a Finding of No Significant Impact was signed by the District Engineer 14 Mar 2000. An Environmental Impact statement is not required.

OTHER INFORMATION: Funds to initiate construction were provided in FY 2001. The Mississinewa Lake Dam Safety/Major Rehabilitation Report was approved by ASA (CW) 5 January 2001. The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


MISSISSENEWA LAKE
ILLINOIS
Indianapolis
OHIO
INDIANA
KENTUCKY
MO.
SHOP
DAM
OUTLET WORKS
FLOW
MISSISSINEWA RIVER
SERVICE BRIDGE
OPERATING TOWER
N
PLAN
SCALE IN FEET
1000 0 1000 2000
PUBLIC BUILDINGS
MIAMI CO.
WABASH CO.
124
FLOOD CONTROL POOL
SEASONAL POOL
MINIMUM POOL
SPILLWAY
LEGEND
Land Subject to Inundation
Legend - Status of Work
Work completed as of September 2003
Work underway with funds available for FY 04
Work proposed with funds requested for FY 05
Work required to complete the project after FY 05
MISSISSINEWA LAKE
PERU, INDIANA
LOUISVILLE DISTRICT
GREAT LAKES & OHIO RIVER DIVISION
1 January 2004

APPROPRIATION TITLE: Construction General – (Dam Safety Assurance)

PROJECT: Bluestone Lake, West Virginia (Dam Safety Assurance) (Continuing)

LOCATION: The dam is located in southern West Virginia, in Summers County, on the New River two miles south of Hinton, West Virginia. It is situated 2.5 miles downstream from the confluence of the New and Bluestone Rivers, and 0.8 miles upstream from the confluence of the New and Greenbrier Rivers.

DESCRIPTION: The dam modifications include stability improvements such as installation of post tensioning high strength steel anchors, and construction of mass concrete thrust blocks at the downstream face of the dam. The height of the dam will be raised by 8 feet and an additional monolith constructed at the east abutment to prevent overtopping of the existing dam and safely accommodate the probable maximum flood. A floodgate closure will be constructed across a state highway at the west abutment. The existing hydropower penstocks will be extended and retrofitted with gates to supplement the discharge capacity of the spillway and outlet works. All work is programmed.

AUTHORIZATION: Executive Order of the President 7183-A, September 12, 1935; Flood Control Acts of 1936 and 1938.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA:

	Original Project
Actual Federal Cost	$ 28,618,100
Actual Non-Federal Cost	0
Total Original Project Cost	$ 28,618,100

SUMMARIZED FINANCIAL DATA: (continued)

Project Modification	
Estimated Federal Cost	$ 119,000,000
Estimated Non-Federal Cost	0
Total Estimated Modification Cost	$ 119,000,000
Total Estimated Project Cost	$ 147,618,100

			ACCUM PCT OF EST FED COST
Allocations to 30 September 2003	$ 31,282,089		
Conference Allowance for FY 2004	4,300,000		
Allocation for FY 2004	4,707,000	1/	
Allocations through FY 2004	35,989,089		30
Allocation Requested for FY 2005	11,400,000		40
Programmed Balance to Complete after FY 2005	71,610,911		
Unprogrammed Balance to Complete after FY 2005	0		

STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Project Modification	25	To Be Determined

PHYSICAL DATA

Increase height of dam 8 feet; install anchors and thrust blocks; construct gate closure across State Route 20; modify penstocks to supplement discharge capacity; relocate electrical lines.

1/ Reflects $952,000 reduction assigned as savings and slippage, $25,000 rescinded in accordance with the Consolidated Appropriations Act, 2004, and $1,384,000 reprogrammed to the project.

JUSTIFICATION: The probable maximum flood is estimated to overtop the existing dam by 8 feet. Evaluations to date indicate the dam is in imminent danger of failure at pool levels approaching the top of dam. Dam failure would cause catastrophic flooding along the Greenbrier, New, Gauley, Kanawha, and Elk Rivers, including the metropolitan area and heavily industrialized capital city of Charleston, West Virginia. This is a serious public safety concern, with more than 115,000 persons at risk. Property damage would exceed $6.5 billion.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction	$ 9,910,000
Continue Planning, Engineering and Design	790,000
Continue Construction Management	700,000
Total	$ 11,400,000

NON-FEDERAL COST: None. The dam safety assurance modification is being performed at full Federal expense.

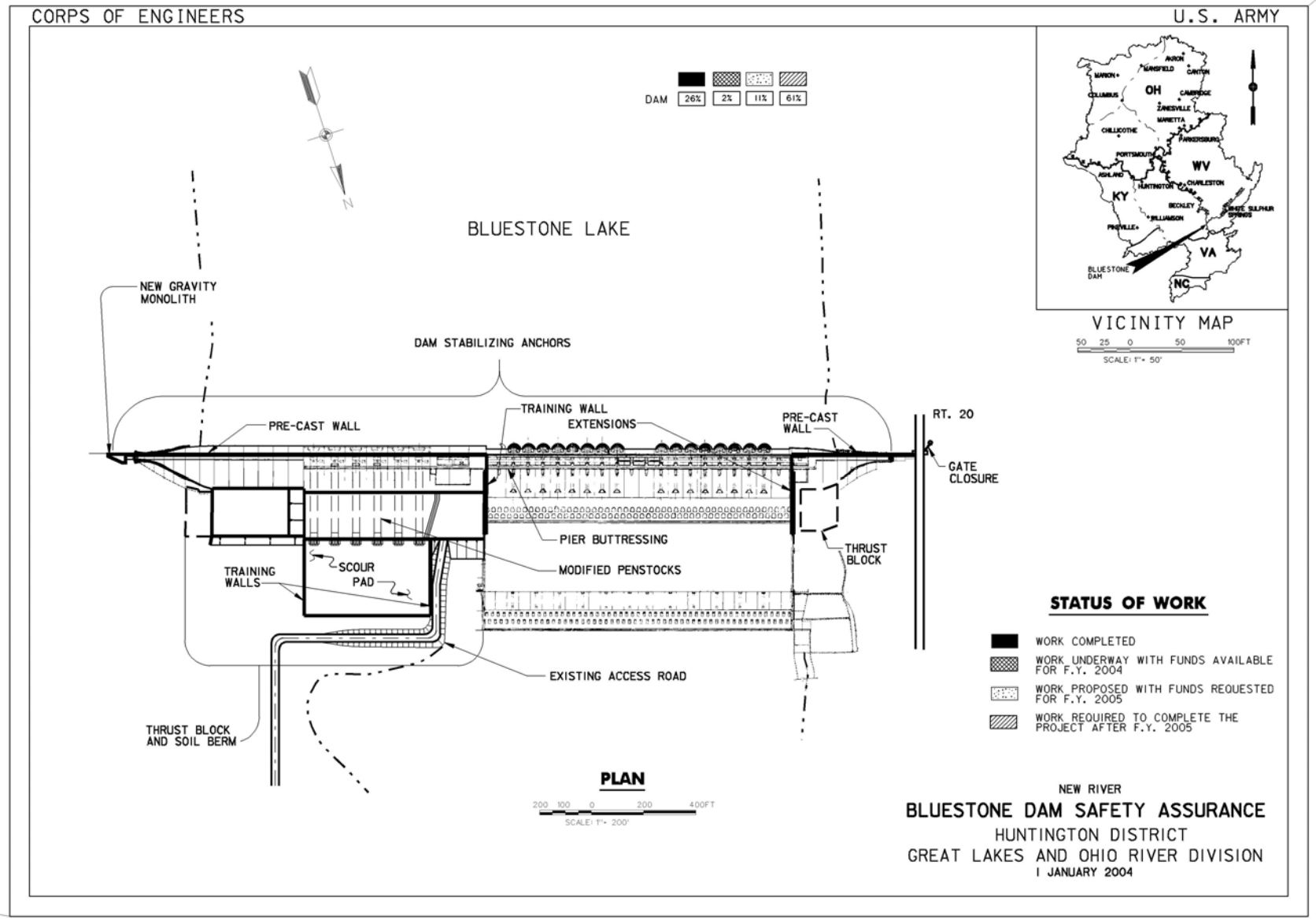
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $ 119,000,000 is an increase of $1,000,000 from the latest estimate ($118,000,000) presented to Congress (FY 2004). This change includes the following item.

Item	Amount
Price Escalation on Construction Features	$ 1,000,000
Total	$ 1,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with EPA on August 31, 1998.

OTHER INFORMATION:

The scheduled completion date is the same as the latest presented to Congress (FY 2004), “To Be Determined”.


CORPS OF ENGINEERS
U.S. ARMY
DAM 26% 2% 11% 61%
BLUESTONE LAKE
NEW GRAVITY MONOLITH
DAM STABILIZING ANCHORS
PRE-CAST WALL
TRAINING WALL EXTENSIONS
PRE-CAST WALL
RT. 20
GATE CLOSURE
PIER BUTTRESSING
THRUST BLOCK
MODIFIED PENSTOCKS
TRAINING WALLS
SCOUR PAD
EXISTING ACCESS ROAD
THRUST BLOCK AND SOIL BERM
PLAN
200 100 0 200 400FT
SCALE: 1"= 200'
OH
WV
KY
VA
NC
BLUESTONE DAM
VICINITY MAP
50 25 0 50 100FT
SCALE: 1"= 50'
STATUS OF WORK
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR F.Y. 2004
WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2005
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2005
NEW RIVER
BLUESTONE DAM SAFETY ASSURANCE
HUNTINGTON DISTRICT
GREAT LAKES AND OHIO RIVER DIVISION
1 JANUARY 2004

GREAT LAKES AND OHIO RIVER DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. **Navigation**

a. **Channels and Harbors**

The program request of $56,854,000 provides for the operational requirements of 51 projects. Requirements include: dredging, snagging, repairing channel stabilization works, harbor jetties, navigation structures, constructing bulkheads and confined disposal areas. The requested amount also includes an amount from the Special Fund established by WRDA96 covering 100% of the costs of operation and maintenance of dredged material disposal facilities for which fees were collected.

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Illinois			
Calumet Harbor and River (IL & IN)	3,985,000	2,124,000	Stone dock and breakwater repairs.
Chicago Harbor	2,319,000	2,599,000	Initiate construction of lock control house.
Chicago River	362,000	385,000	Gage data collection/analysis to support water control activities.
Lake Michigan Diversion	537,000	547,000	Monitor quantity of water diverted to Illinois from Lake Michigan.
Waukegan Harbor	2,027,000	2,680,000	Dredge the harbor approach channel.
Indiana			
Burns Harbor	2,774,000	3,764,000	Repair deteriorated breakwater.
Indiana Harbor	316,000	371,000	Develop CDF Operation Plan. $50K is earmarked for Environmental Management Systems implementation.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. **Navigation** (continued)

a. **Channels and Harbors** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Indiana (continued)			
Michigan City Harbor	1,970,000	316,000	None
Kentucky			
Big Sandy Harbor	35,000	35,000	None.
Michigan			
Channels in Lake St. Clair	466,000	97,000	Maintenance of confined disposal facility access road performed in FY 2004.
Charlevoix Harbor	119,000	159,000	Perform sediment sampling in FY 2005.
Detroit River	3,458,000	4,357,000	Dredge critical shoals and perform location and removal of obstructions.
Grand Haven Harbor	810,000	637,000	Conducted dredged material management plans study in FY 2004.
Grand Marais Harbor	0	181,000	Perform breakwater repairs using the US Derrick Barge Schwartz in FY 2005.
Harbor Beach Harbor	0	38,000	Perform condition surveys in FY 2005.
Holland Harbor	618,000	1,214,000	Dredge inner critical shoals and repair north pier in FY 2005.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. **Navigation** (continued)

a. **Channels and Harbors** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Michigan (continued)			
Keweenaw Waterway	428,000	399,000	Perform archaeological investigations in FY 2004.
Little Lake Harbor	12,000	17,000	Variation in condition survey costs in FY 2005.
Ludington Harbor	946,000	538,000	Dredge critical shoals in FY 2005.
Manistee Harbor	227,000	521,000	Dredge critical shoals in FY 2005.
Marquette Harbor	10,000	10,000	None.
Menominee Harbor (MI & WI)	154,000	154,000	None.
Monroe Harbor	138,000	184,000	Variation in condition survey costs and perform sediment sampling in FY 2005.
Muskegon Harbor	21,000	47,000	Variation in condition survey costs in FY 2005.
Ontonagon Harbor	473,000	569,000	Variation in critical shoals dredging costs in FY 2005.
Rouge River	177,000	1,241,000	Dredge critical shoals in FY 2005.

GREAT LAKES AND OHIO RIVER DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. **Navigation** (continued)

a. **Channels and Harbors** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Michigan (continued)			
Saginaw River	2,001,000	2,708,000	Dredge Bay and River annual shoals and dredge upper Saginaw River in FY 2005.
St. Clair River	1,565,000	947,000	Dredge critical shoals in FY 2004.
St. Joseph Harbor	561,000	605,000	Variation in critical shoals dredging costs in FY 2005.
Minnesota			
Duluth-Superior Harbor (MN & WI)	4,991,000	4,917,000	Repair superior entry south pier (Phase II).
New York			
Buffalo Harbor	1,263,000	309,000	Real estate management in FY 2004.
Dunkirk Harbor	305,000	345,000	Variation in maintenance dredging and condition survey costs in FY 2005.
Oswego Harbor	0	500,000	In-house floating plant structure repair.
Rochester Harbor	55,000	60,000	None.
Ohio			
Ashtabula Harbor	1,245,000	1,940,000	Ashtabula River Partnership maintenance dredging in FY 2005.

GREAT LAKES AND OHIO RIVER DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. **Navigation** (continued)

a. **Channels and Harbors** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Ohio (continued)			
Cleveland Harbor	3,235,000	4,653,000	Variation in condition surveys & DMMP. Environmental compliance management, real estate management, sediment sampling & analysis in FY 2005. Perform maintenance dredging in FY 2005.
Conneaut Harbor	579,000	420,000	Perform maintenance dredging in FY 2004.
Fairport Harbor	735,000	954,000	Sediment sampling & analysis and maintenance dredging in FY 2005.
Huron Harbor	108,000	1,104,000	Structure repair and maintenance dredging in FY 2005.
Lorain Harbor	4,483,000	1,615,000	Variation in condition surveys, environmental compliance management, DMMP, sediment sampling & analysis and structure repairs. Construction on East and West piers in FY 2004.
Port Clinton Harbor	10,000	5,000	Variations in real estate management. Evaluate/Design/P&S East jetties in FY 2004.
Sandusky Harbor	825,000	950,000	Maintenance dredging and wetlands creation in FY 2005.

GREAT LAKES AND OHIO RIVER DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. **Navigation** (continued)

a. **Channels and Harbors** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Ohio (continued)			
Toledo Harbor	4,004,000	3,569,000	Variation in condition surveys, sediment sampling and analysis, environmental compliance management, DMMP & maintenance dredging (open lake & CDF). Maintenance dredging (CDF).
Pennsylvania			
Erie Harbor	135,000	70,000	Variation in condition surveys, environmental compliance management and real estate management costs in FY 2004.
Wisconsin			
Green Bay Harbor	3,492,000	3,585,000	Perform maintenance dredging of critical shoals in FY 2005.
Kenosha Harbor	178,000	190,000	Variation in condition surveys and real estate activities in FY 2005.
Kewaunee Harbor	120,000	95,000	Perform sediment sampling in FY 2004.
Manitowoc Harbor	63,000	72,000	Variation in condition survey costs in FY 2005.
Milwaukee Harbor	781,000	768,000	None.
Sheboygan Harbor	991,000	2,450,000	Repair South pier sections I, J, K & N, concrete caps.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. **Navigation** (continued)

a. **Channels and Harbors** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Wisconsin (continued)			
Sturgeon Bay Harbor and Lak Michigan Ship Canal	317,000	1,324,000	Perform sediment sampling, archaeological activities and dredge critical shoals in FY 2005.
Two Rivers Harbor	1,200,000	15,000	Repair South entrance pier, Sections C, D, D1, E & F in FY 2004.
Other Projects Maintained Periodically	5,920,000	0	
TOTAL, Channels and Harbors	61,544,000	57,354	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. **Navigation** (continued)

b. **Locks, Dams and Canals**

The program request of $138,905,000 provides for the operational requirements of 16 projects. Requirements include: operation and ordinary maintenance of project facilities; facility security, labor, supplies and parts for day-to-day functioning of projects; periodic maintenance, repairs and replacements; and contract law enforcement. The requested amount also includes an amount from the Inland Waterways Trust Fund (IWTF) equal to ¼ of the total costs of operation and maintenance of inland waterways having averaged more than 5 billion ton-miles of traffic per year for the past 5 years, and ½ of the total costs of operation and maintenance of all other inland waterways.

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Kentucky			
Green and Barren Rivers	1,205,000	1,180,000	Replace upper gate leaves (lock 2) in FY 2004.
Kentucky River	17,000	21,000	Additional real property inspections in FY 2005.
Ohio River Locks and Dams-Louisville District (Lower River Segment, Mile 438.0 to Mile 981.0; KY, IL, IN & OH)	31,372,000	32,687,000	Rebuild beartraps and 600 valves, install hydraulic PAC units - L&D 52. Repair 600 miter gate, rebuild 1200 fill & empty valves & 1200 ft lock cells – L&D 53, Fabricate wickets – L&D 52 & 53. Dewater 1200 ft lock, rebuild sector gears & machinery, conduct foundation investigation – Cannelton. Rebuild 2 culvert valves – Newburgh. Modify gate and replace cable connections to tainter gates – Smithland. Dewater 1200 ft chamber – Markland. Update electrical service – McAlpine.

GREAT LAKES AND OHIO RIVER DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. **Navigation** (continued)

b. **Locks, Dams and Canals** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Kentucky (continued)			
Ohio River Open Channel Work-Louisville District (Lower River Segment, Mile 438.0 to Mile 981.0; KY, IL, IN & OH)	4,560,000	4,560,000	Perform navigation channel maintenance dredging in FY 2005.
New York			
Black Rock Channel and Tonawanda Harbor	2,950,000	1,681,000	Variations in operation of lock, water control data collection and real estate management, homeland security and complete construction of the upper west wall in FY 2004. Formal periodic inspection reports and environmental compliance management in FY 2005.
Pennsylvania			
Allegheny River	4,596,000	4,540,000	None.
Monongahela River (PA & WV)	15,158,000	13,963,000	Annual recurring maintenance, dewater 110’ X 720’ lock chamber at L&D 2, dewater 84’ X 700’ lock chamber at Point Marion L&D, dewater 84’ X 700’ lock chamber at Maxwell L&D and continue contract to replace tow haulage units at L&D 2.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. **Navigation** (continued)

b. **Locks, Dams and Canals** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Pennsylvania (continued)			
Ohio River Locks and Dams-Pittsburgh District (Upper River Segment, Mile 0.0 to Mile 127.2; PA, OH & WV)	22,504,000	21,603,000	Routine maintenance, renovate middle wall emptying and stilling valves at Dashields L/D, renovate land wall stilling valve at Pike Island L/D, renovate river wall emptying and stilling valves at Hannibal L/D, recondition dam bulkheads at Emsworth L/D and renovate and install miter gate at Montgomery L/D.
Ohio River Open Channel Work-Pittsburgh District (Upper River Segment, Mile 0.0 to Mile 127.2; PA, OH & WV)	488,000	578,000	Perform maintenance dredging in FY 2005.
Tennessee			
Chickamauga Lock, Tennessee River	2,480,000	1,080,000	Dewater lock in FY 2004.
Tennessee River (TN, AL, KY & MS)	16,521,000	15,210,000	Dewater and repair Wilson auxiliary lock; construct 2 mooring cells at Wheeler Lake; dredge Post Oak Island mile 632 & Looney Island mile 643; repair open building roof at Wheeler, Wilson and Guntersville; replace 4 mooring bitts at Kentucky Lock.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. **Navigation** (continued)

   b. **Locks, Dams and Canals** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
West Virginia			
Kanawha River	7,655,000	7,454,000	Perform channel maintenance dredging; Winfield Locks – Rehab electrical system; Critical security program for upgrading facility security.
Ohio River Locks and Dams - Huntington District (Middle River Segment, Mile 127.2 to Mile 438.0; WV, KY & OH)	24,270,000	26,269,000	Critical project security program for upgrading facility security; Continuing contracts for metallization of Belleville L&D tainter gates and Meldahl L&D replacement of miter gates; Cylinder change out program; Construct gate assembly pier.
Ohio River Open Channel Work - Huntington District (Middle River Segment, Mile 127.2 to Mile 438.0; WV, KY & OH)	2,366,000	2,494,000	Environmental concerns, mussel and channel condition surveys in FY 2005. Perform annual navigation channel maintenance dredging.
Tygart Lake	4,195,000	3,809,000	Continuing contract to replace bulkhead hoist system, upgrade electrical and hydraulic systems and repair slide gates.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

1. **Navigation** (continued)

b. **Locks, Dams and Canals** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Wisconsin			
Fox River	3,929,000	1,776,000	Repair Upper Appleton Dam right abutment and variation in cost of gate hoists renovation at 7 dams in FY 2004.
TOTAL, Locks, Dams and Canals	144,266,000	138,905,000	
TOTAL - NAVIGATION	205,810,000	196,259,000	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. **Flood Control**

a. **Reservoirs**

The program request of $67,439,000 provides for the operational requirements of 71 flood control reservoirs. Requirements include: operation and ordinary maintenance of project facilities; facility security, labor, supplies, materials, and parts for day-to-day functioning of projects; periodic maintenance, repairs, and replacements; and contract law enforcement. The requested amount also includes an amount from the Special Recreation Use Fees (SRUF) Special Fund for recreation areas.

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Indiana			
Brookville Lake	684,000	670,000	None.
Cagles Mill Lake	635,000	652,000	None.
Cecil M. Harden Lake	745,000	713,000	None.
J. Edward Roush Lake	951,000	707,000	Repair damaged corbels on tower floors 3&4, repair motor control center at Markle Pump Plant in FY 2004.
Mississinewa Lake	1,234,000	810,000	None.
Monroe Lake	762,000	775,000	None.
Patoka Lake	687,000	687,000	None.
Salamonie Lake	681,000	634,000	None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. **Flood Control** (continued)

a. **Reservoirs** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Kentucky			
Barren River Lake	2,484,000	2,054,000	Replace hydraulic reservoir and repair service gate in FY 2004.
Buckhorn Lake	1,394,000	1,282,000	Replace spillway gate cables in FY 2004.
Carr Creek Lake	1,448,000	1,270,000	Add Campsites (FY 2003 Congressional Add), install waterline from City of Vico in FY 2004.
Cave Run Lake	819,000	812,000	None.
Dewey Lake	1,636,000	1,498,000	Rebuild 3 sluice gates and resolve real estate encroachments in FY 2005.
Fishtrap Lake	1,681,000	1,558,000	None.
Grayson Lake	1,241,000	1,249,000	None.
Green River Lake	2,359,000	1,596,000	Replace sewage treatment plant at Smith Ridge and replace infrastructure for restrooms in FY 2004.
Martins Fork Lake	583,000	686,000	Monumentation survey in FY 2005.
Nolin Lake	2,376,000	1,892,000	Repair concrete erosion on emergency gate slot in FY 2004.
Paintsville Lake	1,030,000	1,026,000	None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. **Flood Control** (continued)

a. **Reservoirs** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Kentucky (continued)			
Rough River Lake	2,848,000	2,421,000	Replace stilling basin concrete apron and replace piping through exterior walls in FY 2004.
Taylorsville Lake	981,000	895,000	None.
Yatesville Lake	1,082,000	1,069,000	None.
New York			
Mt. Morris Lake	2,753,000	2,129,000	Debris removal, maintenance and repair of dam and facilities and recreation features
Ohio			
Alum Creek Lake	699,000	715,000	None.
Berlin Lake	1,690,000	1,830,000	None.
Caesar Creek Lake	1,490,000	1,187,000	Stabilize landslide by visitors center in FY 2004..
Clarence J. Brown Dam and Reservoir	888,000	758,000	Replace leaking water main on top of dam and construct bike trail in FY 2004.
Deer Creek Lake	637,000	727,000	Completion of congressional add project to construct downstream recreation area.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. **Flood Control** (continued)

a. **Reservoirs** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Ohio (continued)			
Delaware Lake	1,181,000	719,000	None.
Dillon Lake	532,000	653,000	None.
Michael J. Kirwan Dam and Reservoir	793,000	795,000	None.
Mosquito Creek Lake	1,176,000	985,000	Continue dam safety assurance study to correct spillway hazard in FY 2004.
Muskingum River Lakes	7,799,000	5,776,000	Dam Safety Assurance Studies for Bolivar Dam Design and Dover Structural Analysis. Congressional add for Magnolia Levee Dam safety repair.
North Branch of Kokosing River	185,000	169,000	None.
Paint Creek Lake	788,000	747,000	None.
Tom Jenkins Dam	238,000	269,000	Periodic inspection.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. **Flood Control** (continued)

a. **Reservoirs** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Ohio (continued)			
West Fork of Mill Creek Lake	455,000	397,000	Repair and paint embedded steel in FY 04.
William H. Harsha Lake	941,000	848,000	None.
Pennsylvania			
Conemaugh River Lake	962,000	1,012,000	None.
Crooked Creek Lake	1,369,000	1,210,000	Refurbish service gate number 1 and replace low flow valve actuators and position indicator in FY 2004.
East Branch Clarion River Lake	1,057,000	1,086,000	Periodic inspection reports and water management activities.
Kinzua Dam and Allegheny Reservoir (PA & NY)	1,437,000	1,206,000	Congressional add for ADA angler access/modernize visitor center in FY 2004.
Loyalhanna Lake	885,000	934,000	None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. **Flood Control** (continued)

a. **Reservoirs** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Pennsylvania (continued)			
Mahoning Creek Lake	820,000	795,000	None.
Shenango River Lake	2,174,000	2,336,000	Repair emergency generator and service gate and repair sewage treatment plant in FY 2005.
Tionesta Lake	1,790,000	1,551,000	Refurbish service gate number 2, campground renovations and periodic inspections in FY 2004.
Union City Lake	224,000	244,000	None.
Woodcock Creek Lake	810,000	798,000	None.
Virginia			
John W. Flannagan Dam and Reservoir	1,341,000	1,401,000	None.
North Fork of Pound River Lake	343,000	347,000	None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. **Flood Control** (continued)

a. **Reservoirs** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
West Virginia			
Beech Fork Lake	1,061,000	1,062,000	None.
Bluestone Lake	1,074,000	1,047,000	None.
Burnsville Lake	1,446,000	1,531,000	None.
East Lynn Lake	1,609,000	1,672,000	None.
R.D. Bailey Lake	1,457,000	1,416,000	None.
Stonewall Jackson Lake	836,000	859,000	None.
Summersville Lake	1,469,000	1,587,000	None.
Sutton Lake	1,785,000	1,685,000	None.
Other Projects Maintained Periodically	1,804,000	0	
TOTAL, Reservoirs	75,674,000	67,439,000	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. **Flood Control** (continued)

b. **Channel Improvements, Inspection and Miscellaneous Maintenance**

The program request of $1,634,000 provides for the annual and periodic maintenance requirements of 6 local protection projects and the inspection of completed works during the budget year.

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Kentucky			
Middlesboro	92,000	122,000	Conduct corrugated metal & concrete pipe study in FY 2005.
Ohio			
Massillon	25,000	25,000	None.
Roseville	30,000	30,000	None.
Pennsylvania			
Johnstown	997,000	18,000	Continuing contract to complete units 1&2 concrete slope repairs in FY 2004.
Punxsutawney	17,000	17,000	None.
West Virginia			
Elkins	18,000	18,000	None.
Other Projects Maintained Periodically	12,000	0	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. **Flood Control** (continued)

b. **Channel Improvements, Inspection and Miscellaneous Maintenance** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items
			(Threshold $1,000,000).

Inspection of Completed Works. The $1,404,000 requested in FY 2005 supports inspections at flood control projects constructed by the Corps and operated and maintained by non-Federal interests. The inspections are conducted to determine the extent of compliance with legal standards and to advise local interests, as necessary, of corrective measures required to ensure that project structures and facilities will continue to safely provide flood protection benefits. These projects consist of features such as channels, levees, flood walls, drainage structures and pumping plants.

Illinois	148,000	0	
Indiana	346,000	370,000	
Kentucky	83,000	0	
Michigan	153,000	144,000	
Minnesota	15,000	0	
New York	190,000	152,000	
Ohio	210,000	175,000	
Pennsylvania	129,000	0	
Tennessee	0	0	
West Virginia	85,000	0	
Wisconsin	31,000	0	
Inspection of Completed Works	1,390,000	841,000	None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

2. **Flood Control** (continued)

b. **Channel Improvements, Inspection and Miscellaneous Maintenance** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items
			(Threshold $1,000,000).
TOTAL, Channel Improvements, Inspection and Miscellaneous Maintenance	2,576,000	1,071,000	
TOTAL - FLOOD CONTROL	78,250,000	68,510,000	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

3. **Multiple Purpose Power**

The program request of $70,556,000 provides for the operational requirements of 10 multiple purpose projects. Requirements include: operation and ordinary maintenance of project facilities; facility security, labor, supplies, materials, and parts for day-to-day functioning; periodic maintenance, repairs, and replacements; and contract law enforcement. The requested amount also includes application of special recreation use fees for recreation areas.

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Kentucky			
Barkley Dam and Lake Barkley (KY & TN)	8,902,000	8,982,000	Dredging and upland disposal area Cumberland River Mile 104.
Laurel River Lake	1,572,000	1,389,000	None.
Wolf Creek Dam and Lake Cumberland	10,670,000	8,804,000	Rewind hydropower generator unit 4 – 2nd year.
Michigan			
St. Marys River	19,092,000	16,705,000	Maintenance of the locks, power plant, service facilities and location and removal of obstructions.
Tennessee			
Center Hill Lake	8,604,000	5,057,000	Continue to upgrade facility security and design for the rehabilitation of Center Hill power plant.
Cheatham Lock and Dam	5,612,000	6,062,000	Major rehab for power plant and replacement of CO_2 equipment and controls.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

3. **Multiple Purpose Power** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items (Threshold $1,000,000).
Tennessee (continued)			
Cordell Hull Dam and Reservoir	3,870,000	5,688,000	Dewater and repair lock.
Dale Hollow Lake (TN & KY)	6,120,000	4,461,000	Continue upgrade of facility security.
J. Percy Priest Dam and Reservoir	3,150,000	4,245,000	Refurbish spillway gates and upgrade emergency diesel generator.
Old Hickory Lock and Dam	7,685,000	9,163,000	Dewater & repair lock and purchase lock hydraulic/electric equipment.
TOTAL - MULTIPLE PURPOSE POWER	75,277,000	70,556,000	

GREAT LAKES AND OHIO RIVER DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

4. **Protection of Navigation**

The program request of $4,808,000 provides for accomplishing project condition surveys for projects where maintenance is not scheduled in the budget year. It also provides for Great Lakes water control monitoring.

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items
			(Threshold $1,000,000).

Project Condition Surveys. The $625,000 requested in FY 2005 supports hydrographic surveys, inspections, and studies to determine the condition of navigation channels that do not have any other maintenance work included in the budget request and disseminate the information to users of the projects. For the projects that do not require maintenance, surveys are performed at many of them in order to determine the degree of sedimentation so that users can be advised of channel conditions and future maintenance can be scheduled.

Illinois	30,000	33,000	
Indiana	55,000	59,000	
Michigan	182,000	152,000	
Minnesota	52,000	72,000	
New York	290,000	0	
Ohio	129,000	98,000	
Pennsylvania	21,000	30,000	
Wisconsin	86,000	61,000	
Project Condition Surveys	845,000	505,000	Variation in number of projects surveyed in FY 2005.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

4. **Protection of Navigation** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items
			(Threshold $1,000,000).
Surveillance of Northern Boundary Waters. The $4,183,000 requested in FY 2005 supports meeting U.S. obligations under provisions of boundary water treaties and other international agreements. Data collection includes current velocity measurements, presence and intensity of ice, water levels, land use patterns and estimating potential damages caused by extreme levels. This information can be used to enhance water level forecasts, develop crises response plans, and provide advance warning to area residents and waterway users of impending floods or ice jams.			
Illinois	111,000	120,000	
Indiana	115,000	117,000	
Michigan	2,410,000	2,410,000	
Minnesota	216,000	0	
New York	586,000	596,000	
Ohio	165,000	170,000	
Pennsylvania	79,000	82,000	
Wisconsin	472,000	472,000	
Surveillance of Northern Boundary Waters	4,154,000	3,967,000	None.

The if if APPROPRIATION TITLE: Operation and Maintenance, General, FY 2005

4. **Protection of Navigation** (continued)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2004 TOTAL	ESTIMATED OBLIGATIONS ($) FY 2005 TOTAL	Reason For Change and Major Maintenance Items
			(Threshold $1,000,000).
TOTAL - PROTECTION OF NAVIGATION	4,999,000	4,472,000	
GRAND TOTAL - GREAT LAKES AND OHIO RIVER	364,336,000	339,797,000	